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MATTER: Serial No. 09/526,100 Filed: 3/15/00

DOCKET NO.: 6019.3026 (MOTO/NLCP754)

APPLICANT: Sheppard

The following has been received in the U.S. Patent and Trademark Office on the date of this facsimile:

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TRANSMITTAL FORM

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Total Number of Pages in This Submission

Application Number	09/526,100
Filing Date	March 15, 2000
First Named Inventor	Sheppard
Art Unit	2611
Examiner Name	Jason J. Chung
Attorney Docket Number	6019.3026 (MOTO/NLCP754)

ENCLOSURES *(check all that apply)*

- ☒ Fee Transmittal Form
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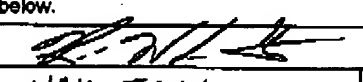
Signature			
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Effective on 12/08/2004.
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FEE TRANSMITTAL for FY 2005

☐ Applicant claims small entity status. See 37 CFR 1.27

TOTAL AMOUNT OF PAYMENT ($) $500.00

Complete if Known

Application Number	09/529,100
Filing Date	3/15/00
First Named Inventor	Sheppard
Examiner Name	Jason J. Chung
Art Unit	2611
Attorney Docket No.	6019.3026 (MOTO/NLCP754)

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FEE CALCULATION

1. BASIC FILING, SEARCH, AND EXAMINATION FEES

	FILING FEES	Small Entity	SEARCH FEES	Small Entity	EXAMINATION FEES	Small Entity	
Application Type	Fee ($)	Fee($)	Fee($)	Fee($)	Fee($)	Fee($)	Fees Paid ($)
Utility	300	150	500	250	200	100	
Design	200	100	100	50	130	65	
Plant	200	100	300	150	160	80	
Reissue	300	150	500	250	600	300	
Provisional	200	100	0	0	0	0	

2. EXCESS CLAIM FEES

Fee Description	Fee ($)	Small Entity Fee ($)
Each claim over 20 (including Reissues)	50	25
Each independent claim over 3 (including Reissues)	200	100
Multiple dependent claims	360	180

Total Claims ____ -20 or HP= ____ x Fee($) ____ = Fee Paid ($) ____

HP = highest number of total claims paid for, if greater than 20.

Indep. Claims ____ - 3 or HP= ____ x Fee($) ____ = Fee Paid ($) ____

HP = highest number of independent claims paid for, if greater than 3.

Multiple Dependent Claims: Fee ($) ____ Fee Paid ($) ____

3. APPLICATION SIZE FEE

If the specification and drawings exceed 100 sheets of paper (excluding electronically filed sequence or computer listings under 37 CFR 1.52(e)), the application size fee due is $250 ($125 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).

Total Sheets ____ - 100 = ____ Extra Sheets ____ / 50 = ____ (round up to a whole number) x Number of each additional 50 or fraction thereof ____ Fee ($) ____ = Fee Paid ($) ____

4. OTHER FEE(S)

	Fees Paid ($)
Non-English Specification, $130 fee (no small entity discount)	
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Signature		Registration No. (Attorney/Agent)	39,400	Telephone	(732) 530-9404
Name (Print/Type)	Kin-Wah Tong			Date	7/11/05

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PATENT
Atty. Dkt. No. 6018.30.29 (MOTO/NLCP754)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

In re Application of:
Sheppard et al.

Serial No.: 09/526,100

Confirmation No.: 9168

Filed: March 15, 2000

For: Optical Conversion Device

§ Group Art Unit: 2611

§ Examiner: Chung, Jason J.

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Dear Sir:

APPEAL BRIEF

Appellants submit this Appeal Brief to the Board of Patent Appeals and Interferences on appeal from the decision of the Examiner of Group Art Unit 2611 dated January 13, 2005, finally rejecting claims 1-9 and 11-45. Please charge the fee of $500.00 for filing this brief and all other fees that may be required to make this Brief timely and acceptable to the Patent Office, to Deposit Account No. 20-0782/MOTO/NLCP754.

REAL PARTY IN INTEREST

The real party in interest is Motorola, Inc.

07/13/2005 WABDELR1 00000092 200782 09526100
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RELATED APPEALS AND INTERFERENCES

The Appellants know of no related appeals or interferences that might directly affect or be directly affected by or have bearing on the Board's decision in the pending appeal.

STATUS OF CLAIMS

Claims 1-9 and 11-45 are pending in the application. Original claim 10 has been cancelled. Claims 1-9 and 11-45 were originally presented in the application. Claims 1-9 and 11-45 stand rejected in view of several references as discussed below. The rejection of claims 1-9 and 11-45 based on the cited references is appealed. The pending claims are shown in the attached Appendix.

STATUS OF AMENDMENTS

No amendments to the claims were submitted in this application subsequent to final rejection.

SUMMARY OF CLAIMED SUBJECT MATTER

The present invention provides a method and apparatus for receiving, decoding and distributing video signal to a plurality of televisions (199) locatable in at least two separate locations via a residential gateway (200). In the embodiment of independent claim 1, the invention comprises a method for receiving channel select commands from remote control devices (700) that are associated with the plurality of televisions. At least one channel select command from one of the optical remote control devices that is associated with a television (199) that is located in close proximity to the residential gateway (200) is received directly by a receiver (472) within the residential gateway (200). A video signal from the telecommunications network is initially received and then transmitted to a video processor (430), which ultimately processes the video signal to produce television signals corresponding to the channel select commands. Lastly, the television signals are transmitted to the appropriate television(s) (see Appellants' specification, p. 18, lines 6-27, see FIGs. 4, 5, and 6).

In the embodiment of independent claim 9, a residential gateway (200) for distributing video signals to a plurality of televisions locatable within at least two separate locations is claimed. The residential gateway (200) is a unitary device that comprises a receiver (472) capable of directly receiving at least one of a plurality of channel select commands from at least one of a plurality of remote control devices (700). The remote control devices (700) are each associated with one of a plurality of televisions (199). In one embodiment, the receiver (472) is an optical receiver, the channel select command is an optical signal, the remote control devices (700) are optical remote control devices, and the televisions (199) are located in close proximity to the residential gateway (200). The residential gateway (200) also comprises a remote control processor (442) that processes the plurality of channel select commands and a network interface module (410) for receiving video signals from a telecommunications network. The received video signals correspond to the plurality of channel select commands. The residential gateway (200) further comprises a video processor (430) for processing the received video signals to produce television signals as well as a transmitter for transmitting the received video signals to the video processor (430) (see Appellants' specification, p. 18, lines 6-27, see FIGs. 4, 5, and 6).

In the embodiment of claim 21, a method for receiving and decoding signals from a telecommunications network at residential gateway (200), and transmitting the decoded signals from the residential gateway (200) to a plurality of televisions (199) is claimed. The method includes connecting each of a plurality of devices and the telecommunications network to the residential gateway (200) in a manner that all of the communications between the devices and network must pass through the residential gateway (200). The residential gateway (200) is also a unitary device. Televisions are subsequently selected from multiple televisions (199) to be viewed by programming remote control devices (700), which are associated with the televisions (199), to transmit channel select commands. A first channel select command is received from a first remote control device (700), which is associated with a first television (199), directly by a receiver (472) within the residential gateway (200). The television (199) is located in close proximity to and connected directly to the residential gateway (200) (see

Appellants' specification, p. 18, lines 6-27, see FIGs. 4, 5, and 6). Channel select commands are subsequently transported to a network interface module (410) and then transmitted to the telecommunication network. Video signals are subsequently received from the telecommunications network at the interface module (410) (see Appellants' specification p. 14, lines 29-33). The video signals are then transmitted to a video processor (430) where they are processed into television signals corresponding to the channel select commands. The television signals are then transmitted to the corresponding televisions (including the first television) (see Appellants' specification, p. 17, lines 1-12, see FIG. 5).

In the embodiment of claim 30, a method comprising the steps of receiving signals from a telecommunications network, decoding the signals, and transmitting the decoded signals from a residential gateway (200) to a plurality of devices including multiple televisions is described. First, the residential gateway (200) is connected to the telecommunications network and to at least one television (199) that is remotely located from the residential gateway (200) and to a television (199) that is located in close proximity to and connected directly to the residential gateway (200). The residential gateway (200) is a unitary device and is capable of directly receiving channel select commands from a plurality of remote control devices (700) associated with the multiple televisions (199). A television channel is subsequently selected to view for the at least one television that is remotely located and/or for the television that is located in close proximity, wherein the selecting is performed by programming optical remote control devices (700) associated with the televisions (199). The optical remote control devices (700) transmit channel select commands as optical signals to optical conversion devices connected to the at least one television (199). Similarly, the optical conversion devices receive the optical signals, convert the optical signals to RF signals and transmit the RF signals over media to a remote antennae module which demodulates the RF signals and extracts the portion corresponding to the channel select commands. The selection of a television channel to view for the television (199) that is located in close proximity is performed by programming an associated optical remote control device (700) that transmits channel select commands directly to the residential gateway (200).

The channel select commands are transmitted to the telecommunications network. A video signal is subsequently received from the telecommunications network and is processed by a video processor (430) to produce television signals corresponding to the channel select commands. Lastly, the television signals are transmitted to the at least one television (see Appellants' specification, p. 21, lines 5-27, FIG. 6).

In the embodiment of claim 31, a residential gateway (200) that is a unitary device and is capable of directly receiving channel select commands from a plurality of remote control devices (700) associated with multiple televisions (199) which are connected to the residential gateway (200) is described. This residential gateway (200) is for receiving and decoding signals from a telecommunications network and transmitting decoded signals to a plurality of devices including multiple televisions (199). The residential gateway (200) comprises a network interface module (410) for transmitting upstream signals, including channel select commands, to the telecommunications network and receiving downstream signals, including video signals, from the telecommunications network. The residential gateway (200) also includes a video processor (430) for processing the video signals into at least one television signal that corresponds to at least one channel select command, and transmits the at least one television signal to the corresponding television (199). Additionally, the residential gateway (200) comprises a remote control module (442) for processing the channel select commands, where at least one of the channel select commands is extracted from a RF signal received from an optical conversion device connected to a remotely located television (199). Lastly, the residential gateway (200) also includes a wireless receiver (472) for receiving wireless channel select commands directly from a first remote control device (700) associated with a first television (199) that is located in close proximity to the residential gateway (200) (see Appellants' specification, p. 15, line 30 – p. 19, line 23).

In the embodiment of claim 33, a system including a residential gateway (200) for receiving and decoding signals from a telecommunications network and transmitting the decoded signals to a plurality of devices including multiple televisions is described. This system comprises a residential gateway (200) located in close proximity to and

connected to a television (199). The residential gateway (200) includes a network interface module (410) for transmitting upstream signals, including channel select commands, to the telecommunications network and receiving downstream signals, including video signals, from the telecommunications network. This residential gateway (200) is also a unitary device and is capable of directly receiving channel select commands from a plurality of remote control devices (700) associated with the multiple televisions. The system also includes a video processor (430), located in the residential gateway (200), for processing the video signals to generate television signals corresponding to the channel select commands, and transmitting the television signals to the corresponding televisions (199). At least one optical conversion device located in close proximity to and connected to a remotely located television (199) is also portion of the system. The optical conversion device receives an optical signal, including a channel select command, from an optical remote control device (700) associated with the remotely located television (199) and converts the optical signal to an RF signal, and modulates the RF signal over media, wherein the television that is located in close proximity to the residential gateway (200) is not connected to an optical conversion device. Lastly, the system includes a remote antennae module (920) that is connected to the media and the residential gateway (200) and is used for demodulating the RF signal, extracting the portion corresponding to the channel select command, and transmitting the channel select command to the residential gateway (200) (see Appellants' specification, p. 21, lines 5-27, p. 23, lines 16-26, and FIG. 6).

In the embodiment of claim 39, an optical conversion device for receiving optical signals, converting the optical signals to RF signals, and transmitting the RF signals over media is described. The optical conversion device (790) comprises an optical receiver (710) for detecting the optical signal and generating a corresponding pulse train. The device also possesses a bias switch (730) connected to the optical receiver (710), which turns on and off in response to the pulse train, and an oscillator (740) that is connected to the bias switch (730) for producing a modulated RF signal. The modulated RF signal is produced by the oscillator (740) turning on and off in response to the bias switch (730). Lastly, the optical conversion device (790) includes a diplexer

filter (760) for directionally injecting the RF signal onto the media (see Appellants' specification, p. 21, line 28 – p. 23, line 9, and FIG. 7).

In the embodiment of claim 44, an optical conversion device for receiving optical signals representing channel select commands from an optical remote control device (700) associated with a television (199), converting the optical signal to an RF signal, and transmitting the RF signal over media to a residential gateway (200) is described. The optical conversion device (790) comprises an optical receiver (710), which detects the optical signal and generates a corresponding pulse train, and a bias switch (730), which is connected to the optical receiver (710) and turns on and off in response to the pulse train. The device also includes an oscillator that is connected to the bias switch (730) for producing a modulated RF signal. The modulated RF signal is produced by the oscillator (740) which turns on and off in response to the bias switch (730). Lastly, the optical conversion device (790) comprises a diplexer filter (760) for injecting the RF signal onto the media in the direction of the residential gateway (200) (see Appellants' specification, p. 21, line 28 – p. 23, line 9, and FIG. 7).

GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

Claims 1-3, 9, 21, 22, 24, 25, and 29 stand rejected under 35 U.S.C. §103(a) as being obvious over Ehreth (U.S. Patent No. 6,286,142, hereinafter "Ehreth") in view of Schultheiss (U.S. Patent No. 6,208,384, hereinafter "Schultheiss"). Claims 4-8, 11, 14, 15, 17, 20, 23, 26-28, 30-33, and 36 stand rejected under 35 U.S.C. §103(a) as being obvious over Ehreth in view of Schultheiss in further view of Martin (U.S. Patent No. 5,500,691, hereinafter "Martin"). Claims 12, 13, 34, and 35 stand rejected under 35 U.S.C. §103(a) as being obvious over Ehreth in view of Schultheiss in further view of Martin in further view of Martinez (U.S. Patent No. 5,812,184, hereinafter "Martinez"). Claims 18 and 37 stand rejected under 35 U.S.C. §103(a) as being obvious over Ehreth in view of Schultheiss in further view of Martin in further view of Budow (U.S. Patent No. 5,521,631, hereinafter "Budow"). Claims 19 and 38 stand rejected under 35 U.S.C. §103(a) as being obvious over Ehreth in view of Schultheiss in further view of Martin in further view of Budow in further view of Flickinger (U.S. Patent No. 5,901,340, hereinafter "Flickinger"). Claims 39 and 41-44 stand rejected under 35 U.S.C. §102(e)

as being anticipated by Martinez. Claims 40 and 45 stand rejected 35 U.S.C. §103(a) as being obvious over Martinez.

ARGUMENT

A. 35 U.S.C. §103(a) – Ehreth in view of Schultheiss

1. Claim 1

Claim 1 stands rejected as being unpatentable under 35 U.S.C. §103(a) over the Ehreth in view of Schultheiss patent. The Appellants disagree.

Ehreth teaches a system comprising a communication controller, a plurality of televisions, and a plurality of corresponding channel selection and signaling units. The system functions by having the channel selection and signaling unit receiving a channel select command from a remote control that is associated with a particular television. The channel selection and signaling unit then sends a signal at a particular upstream frequency to an upstream signaling receiver within a communication controller. A unique upstream frequency is specifically designated at each "user selectable setting" located within each channel selection and signaling unit. The communication controller receives a video signal from a telecommunications network and modulates the signal to a unique downstream frequency that is associated with the original upstream frequency of the channel selection and signal unit. The communication controller then transmits the video signal over a video signal distribution network to a plurality of channel selection and signaling units at the designated downstream frequency. The particular channel selection and signaling unit that is configured to receive the video signal at the appropriate downstream frequency receives the signal and subsequently transmits a television signal to its corresponding television.

Thus, for every television (or set of televisions at a remote site), a channel selection and signaling unit directly receives a channel select command from the remote control and transmits a signal over the video signal distribution network to the communication controller at a designated upstream frequency. The communication controller responds by modulating the desired video information and transmits it to the appropriate channel selection and signaling unit on a particular downstream frequency.

Because each channel selection and signaling unit for each television (or set of televisions at a remote site) has a separate upstream frequency and downstream frequency, independent control for each television set (or remote site) is possible (see Ehreth, Abstract and Figure 1).

Schultheiss discloses a system that provides information to a single television using a corresponding personal computer (PC). More specifically, a unified television/PC remote control transmits commands to the PC via radio frequency (RF) signals. Television commands may be transmitted to the television directly from the remote control using infrared signals or indirectly via the PC using RF or infrared signals.

The Examiner's attention is directed to the fact that Ehreth and Schultheiss (either singly or in any permissible combination) fail to disclose or suggest a method for receiving video signals via a receiver in a residential gateway that is capable of directly receiving channel select commands from a plurality of remote control devices associated with a plurality of televisions, as claimed in Appellants' independent claim 1. Specifically, Appellants' claim 1 positively recites:

> 1. A method of receiving, decoding and distributing video signals from telecommunications network to a plurality of televisions locatable in at least two separate locations via a residential gateway, the method comprising:
> receiving channel select commands from remote control devices associated with the plurality of televisions, wherein at least a first channel select command of said channel select commands from an optical remote control device of said remote control devices associated with a television of said plurality of televisions located in close proximity to the residential gateway is received directly by a receiver within the residential gateway, wherein the residential gateway is a unitary device;
> receiving a video signal from the telecommunications network;
> transmitting the video signal to a video processor;
> processing the video signal to produce television signals corresponding to the channel select commands; and
> transmitting the television signals to the respective televisions. (Emphasis added)

As recited in claim 1 above, the Appellants' invention teaches a method that describes a unitary residential gateway device that directly receives channel select commands from remote control devices associated with the plurality of televisions. After receiving a channel select command from a particular remote control, the residential gateway processes the necessary video signals obtained from a telecommunications network into a television signal. This signal is then subsequently

transmitted to a corresponding television unit. A single residential gateway unit is capable of accomplishing this task for a plurality of televisions and corresponding remote controls.

In contrast, neither Ehreth nor Schultheiss (or any combination of the two references) teach a residential gateway that is a unitary device which is capable of receiving a plurality of channel select commands from a plurality of remote control devices. In Ehreth, a plurality of channel selection devices receives the respective plurality of channel selection commands. Conversely, in Schultheiss, a personal computer (which the Examiner alleges constitutes a residential gateway) receives a single channel selection command from a single remote control for a single television. Thus, since both Ehreth and Schultheiss do not teach the unitary residential gateway capable of receiving a plurality of channel selection commands, the Appellants submit that the combination of Ehreth and Schultheiss does not teach or suggest all the limitations of claim 1.

Secondly, the Examiner conceded that Ehreth failed to disclose that the channel select commands of the remote control associated with a television located in close proximity to the residential gateway are directly received by a receiver within the residential gateway (see Final Office Action, page 4). In an attempt to remedy this deficiency, the Examiner introduced Schultheiss.

However, the alleged combination does not teach a residential gateway that directly receives channel select commands as alleged by the Examiner. Rather, the personal computer (the alleged gateway) described in Schultheiss receives signals from an external network and subsequently transmits data as UHF signals to a single television unit (see Schultheiss, column 5, lines 10-12) per the channel select commands of a corresponding remote control. More importantly, Schultheiss does not disclose or even suggest that this personal computer can be configured to receive signals from multiple remote controls and similarly, distribute data to multiple television units associated with the multiple remote controls.

The Appellants submit that there is no suggestion or motivation to combine Schultheiss with Ehreth. The Appellants submit that Schultheiss **teaches away** from Ehreth since Schultheiss does not mention or suggest the operation of a plurality of

televisions. Specifically, the specification and claims of Schultheiss only teach and suggest the operation of a single personal computer with a single television set. The Examiner alleged that Schultheiss discloses, as an object of the invention, the provision of additional services, without requiring costly add-on accessory units and without requiring memory and computing power (see Schultheiss, column 1, lines 46-53). The Appellants submit that this referenced section of Schultheiss pertains to additional television services (such as an online television program guide) and additional accessory units, including cable television descramblers, video game players, online television grogram guide receivers, and satellite television receivers. Accordingly, the Appellants respectfully submit that the "additional services" without requiring costly "accessory units" does not refer or suggest the use of a second television, but rather to services and accessories intended for a single television.

Even if these references could somehow be operably combined (and the Appellants submit that they cannot be operably combined), the combination would still provide a gateway that could not directly receive a plurality of channel select commands from remote control devices associated with the plurality of televisions. The PC as disclosed in Schultheiss can only receive channel select commands from a single remote control and can only transmit television signals to a single television unit. Although the PC in Schultheiss can directly receive channel select commands from a single remote control, it would not be able to transmit a television signal to a plurality of televisions in a manner described by Ehreth. More specifically, the PC itself (as disclosed in Schultheiss) is required to transmit the television signal to the television unit. Thus, the PC cannot even function as the channel selection and signaling unit 50, which can provide the television signal to a plurality of televisions, described by Ehreth. Thus, the combination proposed by the Examiner is entirely inconsistent with the Appellants' invention as set forth in claim 1.

Therefore, the Appellants submit that the combination of Ehreth and Schultheiss does not teach all of the elements as set forth in claim 1 of the present invention. Consequently, the Appellants respectfully submit that the present invention as set forth in claim 1 is not made obvious by the teaching of Ehreth in view of Schultheiss and fully satisfies the requirements of 35 U.S.C. §103.

2. Claim 2

Claim 2 stands rejected under 35 U.S.C. §103 as being unpatentable over Ehreth in view of Schultheiss. The Appellants respectfully disagree.

The Appellants submit that Ehreth and Schultheiss do not, in any permissible combination, teach, show, or suggest all of the limitations of independent claim 1. Since Ehreth in view of Schultheiss does not make obvious the Appellants' invention as recited in Appellants' independent claim 1, dependent claim 2 is also not made obvious since the claim depends directly from claim 1 and recites additional features of the present invention. Thus, claim 2 should be deemed patentable for at least the reasons stated above with respect to independent claim 1.

Secondly, the Appellants contend that the combination of Ehreth and Schultheiss does not teach or suggest an optical receiver within a unitary residential device capable of receiving a plurality of channel selection commands from a plurality of remote control devices. Moreover, even if Ehreth and Schultheiss suggested the aforementioned limitation, the Appellants submit there is no motivation to combine these references. Thus, the Appellants respectfully submit that claim 2 is patentable under the provisions of 35 U.S.C. §103.

3. Claim 3

Claim 3 stands rejected under 35 U.S.C. §103 as being unpatentable over Ehreth in view of Schultheiss. The Appellants respectfully disagree.

The Appellants submit that Ehreth and Schultheiss do not, in any permissible combination, teach, show, or suggest all of the limitations of independent claim 1. Since Ehreth in view of Schultheiss does not make obvious the Appellants' invention as recited in Appellants' independent claim 1, dependent claim 3 is also not made obvious since the claim depends directly from claim 1 and recites additional features of the present invention. Thus, claim 3 should be deemed patentable for at least the reasons stated above with respect to independent claim 1.

Secondly, the Appellants contend that the combination of Ehreth and Schultheiss does not teach or suggest the receiving of channel select commands for televisions remotely located from a residential gateway, which is a unitary device, that is capable of

receiving a plurality of channel select commands from a plurality of remote control devices. Moreover, even if Ehreth and Schultheiss suggested the aforementioned limitation, the Appellants submit there is no motivation to combine these references. Thus, the Appellants respectfully submit that claim 3 is patentable under the provisions of 35 U.S.C. §103.

4. Claim 9

Claim 9 stands rejected as being unpatentable under 35 U.S.C. §103(a) over the Ehreth in view of Schultheiss patent. The Appellants disagree.

The Examiner's attention is directed to the fact that Ehreth and Schultheiss (either singly or in any permissible combination) fail to disclose or suggest a receiver in a residential gateway that is capable of directly receiving channel select commands from a plurality of remote control devices associated with a plurality of televisions, as claimed in Appellants' independent claim 9. Specifically, Appellants' claim 9 positively recites:

> 9. A residential gateway for distributing video signals to a plurality of televisions locatable within at least two separate locations, said residential gateway comprising:
> a receiver for directly receiving a first channel select command of a plurality of channel select commands from a first remote control device of a plurality of remote control devices associated with a first television of said plurality of televisions, wherein said receiver is an optical receiver, the first channel select command is an optical signal, the first remote control device is an optical remote control device, and the first television is located in close proximity to the residential gateway, wherein the residential gateway is a unitary device and is capable of directly receiving said plurality of channel select commands from said plurality of remote control devices associated with said plurality of televisions;
> a remote control processor for processing said plurality of channel select commands;
> a network interface module for receiving signals, including video signals, from a telecommunications network, wherein the received video signals correspond to the plurality of channel select commands;
> a video processor for processing the received video signals to produce television signals; and
> a transmitter for transmitting the received video signals to said video processor. (Emphasis added)

As recited in claim 9 above, the Appellants' invention teaches a residential gateway device that includes a receiver for directly receiving channel select commands from remote control devices associated with the plurality of televisions. After receiving a channel select command from a particular remote control, the residential gateway processes the necessary video signals obtained from a telecommunications network

into a television signal. This signal is then subsequently transmitted to a corresponding television unit. A single residential gateway unit is capable of accomplishing this task for a plurality of televisions and corresponding remote controls.

In contrast, neither Ehreth nor Schultheiss (or any combination of the two references) teach a residential gateway that is a unitary device which is capable of receiving a plurality of channel select commands from a plurality of remote control devices. In Ehreth, a plurality of channel selection devices receives the respective plurality of channel selection commands. Conversely, in Schultheiss, a personal computer (which the Examiner alleges constitutes a residential gateway) receives a single channel selection command from a single remote control for a single television. Thus, since both Ehreth and Schultheiss do not teach the unitary residential gateway capable of receiving a plurality of channel selection commands, the Appellants submit that the combination of Ehreth and Schultheiss does not teach or suggest all the limitations of claim 9.

Secondly, the combination of Ehreth and Schultheiss does not teach or suggest this novel gateway or receiver. The Examiner conceded that Ehreth failed to disclose that the channel select commands of the remote control associated with a television located in close proximity to the residential gateway are directly received by a receiver within the residential gateway (see Final Office Action, page 4). In an attempt to remedy this deficiency, the Examiner introduced Schultheiss.

However, the alleged combination does not teach a residential gateway that directly receives channel select commands as alleged by the Examiner. Rather, the personal computer (the alleged gateway) described in Schultheiss receives signals from an external network and subsequently transmits data as UHF signals to a single television unit (see Schultheiss, column 5, lines 90-92) per the channel select commands of a corresponding remote control. More importantly, Schultheiss does not disclose or even suggest that this personal computer can be configured to receive signals from multiple remote controls and similarly, distribute data to multiple television units associated with the multiple remote controls.

The Appellants submit that there is no suggestion or motivation to combine Schultheiss with Ehreth. The Appellants submit that Schultheiss **teaches away** from

Ehreth since Schultheiss does not mention or suggest the operation of a plurality of televisions. Specifically, the specification and claims of Schultheiss only teach and suggest the operation of a single personal computer with a single television set. The Examiner alleged that Schultheiss discloses, as an object of the invention, the provision of additional services, without requiring costly add-on accessory units and without requiring memory and computing power (see Schultheiss, column 9, lines 46-53). The Appellants submit that this referenced section of Schultheiss pertains to additional television services (such as an online television program guide) and additional accessory units, including cable television descramblers, video game players, online television grogram guide receivers, and satellite television receivers. Accordingly, the Appellants respectfully submit that the "additional services" without requiring costly "accessory units" does not refer or suggest the use of a second television but rather to services and accessories intended for a single television.

Even if these references could somehow be operably combined (and the Appellants submit that they cannot be operably combined), the combination would still provide a gateway that could not directly receive a plurality of channel select commands from remote control devices associated with the plurality of televisions. The PC as disclosed in Schultheiss can only receive channel select commands from a single remote control and can only transmit television signals to a single television unit. Although the PC in Schultheiss can directly receive channel select commands from a single remote control, it would not be able to transmit a television signal to a plurality of televisions in a manner described by Ehreth. More specifically, the PC itself (as disclosed in Schultheiss) is required to transmit the television signal to the television unit. Thus, the PC cannot even function as the channel selection and signaling unit 50, which can provide the television signal to a plurality of televisions, described by Ehreth. Thus, the combination proposed by the Examiner is entirely inconsistent with the Appellants' invention as set forth in claim 9.

Therefore, the Appellants submit that the combination of Ehreth and Schultheiss does not teach all of the elements as set forth in claim 9 of the present invention. Consequently, the Appellants respectfully submit that the present invention as set forth

in claim 9 is not made obvious by the teaching of Ehreth in view of Schultheiss and fully satisfies the requirements of 35 U.S.C. §103.

5. Claim 21

The Examiner's attention is directed to the fact that Ehreth and Schultheiss (either singly or in any permissible combination) fail to disclose or suggest a method for receiving video signals via a receiver in a residential gateway that is capable of directly receiving channel select commands from a plurality of remote control devices associated with a plurality of televisions, as claimed in Appellants' independent claim 21. Specifically, Appellants' claim 21 positively recites:

> 21. A method for receiving and decoding signals from a telecommunications network at a residential gateway, and transmitting the decoded signals from the residential gateway to a plurality of devices including multiple televisions, the method comprising:
> connecting each of the plurality of devices and the telecommunications network to the residential gateway so that all of the communications between the devices and the telecommunications network must pass through the residential gateway, wherein the residential gateway is a unitary device;
> selecting televisions to view for the multiple televisions by programming associated remote control devices to transmit channel select commands, wherein a first channel select command is received from a first remote control device, associated with a first television, directly by a receiver within the residential gateway, wherein the first television is located in close proximity to the residential gateway and connected directly to the residential gateway;
> transporting the channel select commands to a network interface module;
> transmitting the channel select commands from the network interface module to the telecommunications network;
> receiving video signals from the telecommunications network at the network interface module;
> transmitting the video signals to a video processor;
> processing the video signals into television signals corresponding to the channel select commands; and
> transmitting the television signals to the corresponding televisions including the first television. (Emphasis added)

As recited in claim 21 above, the Appellants' invention teaches a method that describes a residential gateway device that directly receives channel select commands from remote control devices associated with the plurality of televisions. After receiving a channel select command from a particular remote control, the residential gateway processes the necessary video signals obtained from a telecommunications network into a television signal. This signal is then subsequently transmitted to a corresponding television unit. A single residential gateway unit is capable of accomplishing this task for a plurality of televisions and corresponding remote controls.

In contrast, neither Ehreth nor Schultheiss (or any combination of the two references) teach a residential gateway that is a unitary device which is capable of receiving a plurality of channel select commands from a plurality of remote control devices. In Ehreth, a plurality of channel selection devices receives the respective plurality of channel selection commands. Conversely, in Schultheiss, a personal computer (which the Examiner alleges constitutes a residential gateway) receives a single channel selection command from a single remote control for a single television. Thus, since both Ehreth and Schultheiss do not teach the unitary residential gateway capable of receiving a plurality of channel selection commands, the Appellants submit that the combination of Ehreth and Schultheiss does not teach or suggest all the limitations of claim 21.

Secondly, the combination of Ehreth and Schultheiss does not teach or suggest this novel approach. The Examiner conceded that Ehreth failed to disclose that the channel select commands of the remote control associated with a television located in close proximity to the residential gateway are directly received by a receiver within the residential gateway (see Final Office Action, page 4). In an attempt to remedy this deficiency, the Examiner introduced Schultheiss.

However, the alleged combination does not teach a residential gateway that directly receives channel select commands as alleged by the Examiner. Rather, the personal computer (the alleged gateway) described in Schultheiss receives signals from an external network and subsequently transmits data as UHF signals to a single television unit (see Schultheiss, column 5, lines 210-212) per the channel select commands of a corresponding remote control. More importantly, Schultheiss does not disclose or even suggest that this personal computer can be configured to receive signals from multiple remote controls and similarly, distribute data to multiple television units associated with the multiple remote controls.

The Appellants submit that there is no suggestion or motivation to combine Schultheiss with Ehreth. The Appellants submit that Schultheiss **teaches away** from Ehreth since Schultheiss does not mention or suggest the operation of a plurality of televisions. Specifically, the specification and claims of Schultheiss only teach and suggest the operation of a single personal computer with a single television set. The

Examiner alleged that Schultheiss discloses, as an object of the invention, the provision of additional services, without requiring costly add-on accessory units and without requiring memory and computing power (see Schultheiss, column 21, lines 46-53). The Appellants submit that this referenced section of Schultheiss pertains to additional television services (such as an online television program guide) and additional accessory units, including cable television descramblers, video game players, online television grogram guide receivers, and satellite television receivers. Accordingly, the Appellants respectfully submit that the "additional services" without requiring costly "accessory units" does not refer or suggest the use of a second television, but rather to services and accessories intended for a single television.

Even if these references could somehow be operably combined (and the Appellants submit that they cannot be operably combined), the combination would still provide a gateway that could not directly receive a plurality of channel select commands from remote control devices associated with the plurality of televisions. The PC as disclosed in Schultheiss can only receive channel select commands from a single remote control and can only transmit television signals to a single television unit. Although the PC in Schultheiss can directly receive channel select commands from a single remote control, it would not be able to transmit a television signal to a plurality of televisions in a manner described by Ehreth. More specifically, the PC itself (as disclosed in Schultheiss) is required to transmit the television signal to the television unit. Thus, the PC cannot even function as the channel selection and signaling unit 50, which can provide the television signal to a plurality of televisions, described by Ehreth. Thus, the combination proposed by the Examiner is entirely inconsistent with the Appellants' invention as set forth in claim 21.

Therefore, the Appellants submit that the combination of Ehreth and Schultheiss does not teach all of the elements as set forth in claim 21 of the present invention. Consequently, the Appellants respectfully submit that the present invention as set forth in claim 21 is not made obvious by the teaching of Ehreth in view of Schultheiss and fully satisfies the requirements of 35 U.S.C. §103.

6. Claim 22

Claim 22 stands rejected under 35 U.S.C. §103 as being unpatentable over Ehreth in view of Schultheiss. The Appellants respectfully disagree.

The Appellants submit that Ehreth and Schultheiss do not, in any permissible combination, teach, show, or suggest all of the limitations of independent claim 21. Since Ehreth in view of Schultheiss does not make obvious the Appellants' invention as recited in Appellants' independent claim 21, dependent claim 22 is also not made obvious since the claim depends directly from claim 21 and recites additional features of the present invention. Thus, claim 22 should be deemed patentable for at least the reasons stated above with respect to independent claim 21.

In addition, there is no motivation or suggestion to utilize S-video cables by either Ehreth or Schultheiss. Since neither reference provides the requisite motivation or suggestion for this specific limitation, the Appellants respectfully submit that claim 22 is patentable under the provisions of 35 U.S.C. §103.

7. Claim 24

Claim 24 stands rejected under 35 U.S.C. §103 as being unpatentable over Ehreth in view of Schultheiss. The Appellants respectfully disagree.

The Appellants submit that Ehreth and Schultheiss do not, in any permissible combination, teach, show, or suggest all of the limitations of independent claim 21. Since Ehreth in view of Schultheiss does not make obvious the Appellants' invention as recited in Appellants' independent claim 21, dependent claim 24 is also not made obvious since the claim depends directly from claim 21 and recites additional features of the present invention. Thus, claim 24 should be deemed patentable for at least the reasons stated above with respect to independent claim 21.

Secondly, the Appellants contend that the combination of Ehreth and Schultheiss does not teach or suggest directly receiving of channel select commands for televisions remotely located from a residential gateway, which is a unitary device, that is capable of receiving a plurality of channel select commands from a plurality of remote control devices, wherein in one of the remote control devices is an optical remote control device. Moreover, even if Ehreth and Schultheiss suggested the aforementioned limitation, the Appellants submit there is no motivation to combine these references.

Thus, the Appellants respectfully submit that claim 24 is patentable under the provisions of 35 U.S.C. §103.

8. Claim 25

Claim 25 stands rejected under 35 U.S.C. §103 as being unpatentable over Ehreth in view of Schultheiss. The Appellants respectfully disagree.

The Appellants submit that Ehreth and Schultheiss do not, in any permissible combination, teach, show, or suggest all of the limitations of independent claim 21. Since Ehreth in view of Schultheiss does not make obvious the Appellants' invention as recited in Appellants' independent claim 21, dependent claim 25 is also not made obvious since the claim depends directly from claim 21 and recites additional features of the present invention. Thus, claim 25 should be deemed patentable for at least the reasons stated above with respect to independent claim 21.

Secondly, the Appellants contend that the combination of Ehreth and Schultheiss does not teach or suggest receiving optical channel select commands for televisions remotely located from a residential gateway, which is a unitary device, capable of receiving a plurality of optical channel select commands from a plurality of optical remote control devices. Moreover, even if Ehreth and Schultheiss suggested the aforementioned limitation, the Appellants submit there is no motivation to combine these references. Thus, the Appellants respectfully submit that claim 25 is patentable under the provisions of 35 U.S.C. §103.

9. Claim 29

Claim 29 stands rejected under 35 U.S.C. §103 as being unpatentable over Ehreth in view of Schultheiss. The Appellants respectfully disagree.

The Appellants submit that Ehreth and Schultheiss do not, in any permissible combination, teach, show, or suggest all of the limitations of independent claim 21. Since Ehreth in view of Schultheiss does not make obvious the Appellants' invention as recited in Appellants' independent claim 21, dependent claim 29 is also not made obvious since the claim depends directly from claim 21 and recites additional features of

the present invention. Thus, claim 29 should be deemed patentable for at least the reasons stated above with respect to independent claim 21.

In addition, there is no motivation or suggestion to utilize S-video cables by either Ehreth or Schultheiss. Since neither reference provides the requisite motivation or suggestion for this specific limitation, the Appellants respectfully submit that claim 29 is patentable under the provisions of 35 U.S.C. §103.

B. 35 U.S.C. §103(a) – Ehreth in view of Schultheiss in further view of Martin

1. Claim 4

The Examiner rejected claim 4 as being unpatentable over Ehreth in view of Schultheiss in further view of Martin (United States patent 5,500,691, hereinafter Martin). The rejection is respectfully traversed.

Ehreth and Schultheiss have been discussed above.

Martin teaches a video system that includes a receiver that generates a remote identifier setup display on a television monitor and further including a remote control unit having a radio frequency transmitter and an infrared transmitter. The video system enables a user to enter a remote control identifier for the radio frequency transmitter through the remote identifier setup display using the infrared transmitter. The receiver initially ignores remote command signals received from the radio frequency transmitter until the remote control identifier is entered (See Martin, Abstract).

The Examiner's attention is directed to the fact that Ehreth, Schultheiss and Martin (either singly or in any permissible combination) fail to disclose or suggest a method for receiving, decoding, and distribution video signals via a unitary residential gateway capable of directly receiving channel select commands from remote control devices associated with a plurality of televisions, as claimed in Appellants' independent claim 1.

The deficiency left by the combination of Ehreth and Schultheiss is not bridged by Martin. The Appellants contend that Martin does not teach or suggest a unitary residential gateway device that can directly receive multiple channel selection commands from a plurality of remote controls associated with a plurality of televisions, as claimed in independent claim 1. Therefore, the Appellants submit that independent claim 1 fully satisfies the requirements of 35 U.S.C. §103 and is patentable thereunder.

The Appellants submit that Ehreth, Schultheiss, and Martin do not, in any permissible combination, teach, show, or suggest all of the limitations of independent claim 1. Since Ehreth in view of Schultheiss in further view of Martin does not make obvious the Appellants' invention as recited in Appellants' independent claim 1, dependent claim 4 is also not made obvious since the claim depends indirectly from claim 1 and recites additional features of the present invention. Thus, claim 4 should be deemed patentable for at least the reasons stated above with respect to independent claim 1.

Secondly, the Appellants contend that the combination of Ehreth, Schultheiss, and Martin does not teach or suggest a unitary residential gateway device capable of receiving a plurality of optical channel selection commands from a plurality of optical remote control devices. Moreover, even if Ehreth, Schultheiss, and Martin suggested the aforementioned limitation, the Appellants submit there is no motivation to combine these references. Thus, the Appellants respectfully submit that claim 4 is patentable under the provisions of 35 U.S.C. §103.

2. Claim 5

Claim 5 stands rejected under 35 U.S.C. §103 as being unpatentable over Ehreth in view of Schultheiss in further view of Martin. The Appellants respectfully disagree.

The Appellants submit that Ehreth, Schultheiss, and Martin do not, in any permissible combination, teach, show, or suggest all of the limitations of independent claim 1. Since Ehreth in view of Schultheiss in further view of Martin does not make obvious the Appellants' invention as recited in Appellants' independent claim 1, dependent claim 5 is also not made obvious since the claim depends indirectly from claim 1 and recites additional features of the present invention. Thus, claim 5 should be deemed patentable for at least the reasons stated above with respect to independent claim 1.

Secondly, the Appellants contend that the combination of Ehreth, Schultheiss, and Martin does not teach or suggest transmitting channel select commands from an (external) remote antennae module to a unitary residential gateway device capable of receiving a plurality of channel selection commands from a plurality of remote control

devices. Moreover, even if Ehreth, Schultheiss, and Martin suggested the aforementioned limitation, the Appellants submit there is no motivation to combine these references. Thus, the Appellants respectfully submit that claim 5 is patentable under the provisions of 35 U.S.C. §103.

3. Claim 6

Claim 6 stands rejected under 35 U.S.C. §103 as being unpatentable over Ehreth in view of Schultheiss in further view of Martin. The Appellants respectfully disagree.

The Appellants submit that Ehreth, Schultheiss, and Martin do not, in any permissible combination, teach, show, or suggest all of the limitations of independent claim 1. Since Ehreth in view of Schultheiss in further view of Martin does not make obvious the Appellants' invention as recited in Appellants' independent claim 1, dependent claim 6 is also not made obvious since the claim depends indirectly from claim 1 and recites additional features of the present invention. Thus, claim 6 should be deemed patentable for at least the reasons stated above with respect to independent claim 1.

Secondly, the Appellants contend that the combination of Ehreth, Schultheiss, and Martin does not teach or suggest transmitting channel select commands from an (external) remote antennae module to a unitary residential gateway device capable of receiving a plurality of channel selection commands from a plurality of remote control devices over coaxial cable. Moreover, even if Ehreth, Schultheiss, and Martin suggested the aforementioned limitation, the Appellants submit there is no motivation to combine these references. Thus, the Appellants respectfully submit that claim 6 is patentable under the provisions of 35 U.S.C. §103.

4. Claim 7

Claim 7 stands rejected under 35 U.S.C. §103 as being unpatentable over Ehreth in view of Schultheiss in further view of Martin. The Appellants respectfully disagree.

The Appellants submit that Ehreth, Schultheiss, and Martin do not, in any permissible combination, teach, show, or suggest all of the limitations of independent claim 1. Since Ehreth in view of Schultheiss in further view of Martin does not make

obvious the Appellants' invention as recited in Appellants' independent claim 1, dependent claim 7 is also not made obvious since the claim depends indirectly from claim 1 and recites additional features of the present invention. Thus, claim 7 should be deemed patentable for at least the reasons stated above with respect to independent claim 1.

Secondly, the Appellants contend that the combination of Ehreth, Schultheiss, and Martin does not teach or suggest transmitting channel select commands from a media interface device to a unitary residential gateway device capable of receiving a plurality of channel selection commands from a plurality of remote control devices. Moreover, even if Ehreth, Schultheiss, and Martin suggested the aforementioned limitation, the Appellants submit there is no motivation to combine these references. Thus, the Appellants respectfully submit that claim 7 is patentable under the provisions of 35 U.S.C. §103.

5. Claim 8

Claim 8 stands rejected under 35 U.S.C. §103 as being unpatentable over Ehreth in view of Schultheiss in further view of Martin. The Appellants respectfully disagree.

The Appellants submit that Ehreth, Schultheiss, and Martin do not, in any permissible combination, teach, show, or suggest all of the limitations of independent claim 1. Since Ehreth in view of Schultheiss in further view of Martin does not make obvious the Appellants' invention as recited in Appellants' independent claim 1, dependent claim 8 is also not made obvious since the claim depends indirectly from claim 1 and recites additional features of the present invention. Thus, claim 8 should be deemed patentable for at least the reasons stated above with respect to independent claim 1.

Secondly, the Appellants contend that the combination of Ehreth, Schultheiss, and Martin does not teach or suggest a unitary residential gateway device capable of receiving a plurality of infrared channel selection commands from a plurality of infrared remote control devices. Moreover, even if Ehreth, Schultheiss, and Martin suggested the aforementioned limitation, the Appellants submit there is no motivation to combine

these references. Thus, the Appellants respectfully submit that claim 8 is patentable under the provisions of 35 U.S.C. §103.

6. Claim 11

Claim 11 stands rejected under 35 U.S.C. §103 as being unpatentable over Ehreth in view of Schultheiss in further view of Martin. The Appellants respectfully disagree.

The Examiner's attention is directed to the fact that Ehreth, Schultheiss and Martin (either singly or in any permissible combination) fail to disclose or suggest a method for receiving, decoding, and distribution video signals via a residential gateway capable of directly receiving channel select commands from remote control devices associated with a plurality of televisions, as claimed in Appellants' independent claim 9.

The deficiency left by the combination of Ehreth and Schultheiss is not bridged by Martin. The Appellants contend that Martin does not teach or suggest a unitary residential gateway device that can directly receive multiple channel selection commands from a plurality of remote controls associated with a plurality of televisions, as claimed in independent claim 9. Therefore, the Appellants submit that independent claim 9 fully satisfies the requirements of 35 U.S.C. §103 and is patentable thereunder.

The Appellants submit that Ehreth, Schultheiss, and Martin do not, in any permissible combination, teach, show, or suggest all of the limitations of independent claim 9. Since Ehreth in view of Schultheiss in further view of Martin does not make obvious the Appellants' invention as recited in Appellants' independent claim 9, dependent claim 11 is also not made obvious since the claim depends directly from claim 9 and recites additional features of the present invention. Thus, claim 11 should be deemed patentable for at least the reasons stated above with respect to independent claim 9.

Secondly, the Appellants contend that the combination of Ehreth, Schultheiss, and Martin does not teach or suggest a unitary residential gateway device capable of receiving a plurality of optical channel selection commands from a plurality of optical remote control devices. Moreover, even if Ehreth, Schultheiss, and Martin suggested the aforementioned limitation, the Appellants submit there is no motivation to combine

these references. Thus, the Appellants respectfully submit that claim 11 is patentable under the provisions of 35 U.S.C. §103.

7. Claim 14

Claim 14 stands rejected under 35 U.S.C. §103 as being unpatentable over Ehreth in view of Schultheiss in further view of Martin. The Appellants respectfully disagree.

The Appellants submit that Ehreth, Schultheiss, and Martin do not, in any permissible combination, teach, show, or suggest all of the limitations of independent claim 9. Since Ehreth in view of Schultheiss in further view of Martin does not make obvious the Appellants' invention as recited in Appellants' independent claim 9, dependent claim 14 is also not made obvious since the claim depends indirectly from claim 9 and recites additional features of the present invention. Thus, claim 14 should be deemed patentable for at least the reasons stated above with respect to independent claim 9.

Secondly, the Appellants contend that the combination of Ehreth, Schultheiss, and Martin does not teach or suggest a unitary residential gateway device capable of receiving a plurality of channel selection commands from a plurality of remote control devices, wherein the residential gateway is coupled to a remote antennae module that extracts the channel selection commands from RF signals. Moreover, even if Ehreth, Schultheiss, and Martin suggested the aforementioned limitation, the Appellants submit there is no motivation to combine these references. Thus, the Appellants respectfully submit that claim 14 is patentable under the provisions of 35 U.S.C. §103.

8. Claim 15

Claim 15 stands rejected under 35 U.S.C. §103 as being unpatentable over Ehreth in view of Schultheiss in further view of Martin. The Appellants respectfully disagree.

The Appellants submit that Ehreth, Schultheiss, and Martin do not, in any permissible combination, teach, show, or suggest all of the limitations of independent claim 9. Since Ehreth in view of Schultheiss in further view of Martin does not make

obvious the Appellants' invention as recited in Appellants' independent claim 9, dependent claim 15 is also not made obvious since the claim depends indirectly from claim 9 and recites additional features of the present invention. Thus, claim 15 should be deemed patentable for at least the reasons stated above with respect to independent claim 9.

Secondly, the Appellants contend that the combination of Ehreth, Schultheiss, and Martin does not teach or suggest a unitary residential gateway device capable of receiving a plurality of channel selection commands from a plurality of remote control devices, wherein the residential gateway is coupled to a remote antennae module that extracts the channel selection commands from RF signals over coaxial cable. Moreover, even if Ehreth, Schultheiss, and Martin suggested the aforementioned limitation, the Appellants submit there is no motivation to combine these references. Thus, the Appellants respectfully submit that claim 15 is patentable under the provisions of 35 U.S.C. §103.

9. Claim 17

Claim 17 stands rejected under 35 U.S.C. §103 as being unpatentable over Ehreth in view of Schultheiss in further view of Martin. The Appellants respectfully disagree.

The Appellants submit that Ehreth, Schultheiss, and Martin do not, in any permissible combination, teach, show, or suggest all of the limitations of independent claim 9. Since Ehreth in view of Schultheiss in further view of Martin does not make obvious the Appellants' invention as recited in Appellants' independent claim 9, dependent claim 17 is also not made obvious since the claim depends indirectly from claim 9 and recites additional features of the present invention. Thus, claim 17 should be deemed patentable for at least the reasons stated above with respect to independent claim 9.

Secondly, the Appellants contend that the combination of Ehreth, Schultheiss, and Martin does not teach or suggest a unitary residential gateway device capable of receiving a plurality of channel selection commands from a plurality of remote control devices, wherein the residential gateway includes a media interface device that extracts

the channel selection commands from RF signals. Moreover, even if Ehreth, Schultheiss, and Martin suggested the aforementioned limitation, the Appellants submit there is no motivation to combine these references. Thus, the Appellants respectfully submit that claim 17 is patentable under the provisions of 35 U.S.C. §103.

10. Claim 20

Claim 20 stands rejected under 35 U.S.C. §103 as being unpatentable over Ehreth in view of Schultheiss in further view of Martin. The Appellants respectfully disagree.

The Appellants submit that Ehreth, Schultheiss, and Martin do not, in any permissible combination, teach, show, or suggest all of the limitations of independent claim 9. Since Ehreth in view of Schultheiss in further view of Martin does not make obvious the Appellants' invention as recited in Appellants' independent claim 9, dependent claim 20 is also not made obvious since the claim depends indirectly from claim 9 and recites additional features of the present invention. Thus, claim 20 should be deemed patentable for at least the reasons stated above with respect to independent claim 9.

Secondly, the Appellants contend that the combination of Ehreth, Schultheiss, and Martin does not teach or suggest a unitary residential gateway device capable of receiving a plurality of channel selection commands from a plurality of remote control devices, wherein the residential gateway is directly connected to a media interface device that extracts the channel selection commands from RF signals. Moreover, even if Ehreth, Schultheiss, and Martin suggested the aforementioned limitation, the Appellants submit there is no motivation to combine these references. Thus, the Appellants respectfully submit that claim 20 is patentable under the provisions of 35 U.S.C. §103.

11. Claim 23

Claim 23 stands rejected under 35 U.S.C. §103 as being unpatentable over Ehreth in view of Schultheiss in further view of Martin. The Appellants respectfully disagree.

The Examiner's attention is directed to the fact that Ehreth, Schultheiss and Martin (either singly or in any permissible combination) fail to disclose or suggest a method for receiving, decoding, and distribution video signals via a residential gateway capable of directly receiving channel select commands from remote control devices associated with a plurality of televisions, as claimed in Appellants' independent claim 21.

The deficiency left by the combination of Ehreth and Schultheiss is not bridged by Martin. The Appellants contend that Martin does not teach or suggest a unitary residential gateway device that can directly receive multiple channel selection commands from a plurality of remote controls associated with a plurality of televisions, as claimed in independent claim 21. Therefore, the Appellants submit that independent claim 21 fully satisfies the requirements of 35 U.S.C. §103 and is patentable thereunder.

The Appellants submit that Ehreth, Schultheiss, and Martin do not, in any permissible combination, teach, show, or suggest all of the limitations of independent claim 21. Since Ehreth in view of Schultheiss in further view of Martin does not make obvious the Appellants' invention as recited in Appellants' independent claim 21, dependent claim 23 is also not made obvious since the claim depends directly from claim 21 and recites additional features of the present invention. Thus, claim 23 should be deemed patentable for at least the reasons stated above with respect to independent claim 21.

Secondly, the Appellants contend that the combination of Ehreth, Schultheiss, and Martin does not teach or suggest a unitary residential gateway device capable of receiving a plurality of channel selection commands from a plurality of remote control devices, wherein the residential gateway is connected to a remote antennae module. Moreover, even if Ehreth, Schultheiss, and Martin suggested the aforementioned limitation, the Appellants submit there is no motivation to combine these references. Thus, the Appellants respectfully submit that claim 23 is patentable under the provisions of 35 U.S.C. §103.

12. Claim 26

Claim 26 stands rejected under 35 U.S.C. §103 as being unpatentable over Ehreth in view of Schultheiss in further view of Martin. The Appellants respectfully disagree.

The Appellants submit that Ehreth, Schultheiss, and Martin do not, in any permissible combination, teach, show, or suggest all of the limitations of independent claim 21. Since Ehreth in view of Schultheiss in further view of Martin does not make obvious the Appellants' invention as recited in Appellants' independent claim 21, dependent claim 26 is also not made obvious since the claim depends indirectly from claim 21 and recites additional features of the present invention. Thus, claim 26 should be deemed patentable for at least the reasons stated above with respect to independent claim 21.

Secondly, the Appellants contend that the combination of Ehreth, Schultheiss, and Martin does not teach or suggest a unitary residential gateway device capable of receiving a plurality of optical channel selection commands from a plurality of optical remote control devices. Moreover, even if Ehreth, Schultheiss, and Martin suggested the aforementioned limitation, the Appellants submit there is no motivation to combine these references. Thus, the Appellants respectfully submit that claim 26 is patentable under the provisions of 35 U.S.C. §103.

13. Claim 27

Claim 27 stands rejected under 35 U.S.C. §103 as being unpatentable over Ehreth in view of Schultheiss in further view of Martin. The Appellants respectfully disagree.

The Appellants submit that Ehreth, Schultheiss, and Martin do not, in any permissible combination, teach, show, or suggest all of the limitations of independent claim 21. Since Ehreth in view of Schultheiss in further view of Martin does not make obvious the Appellants' invention as recited in Appellants' independent claim 21, dependent claim 27 is also not made obvious since the claim depends indirectly from claim 21 and recites additional features of the present invention. Thus, claim 27 should be deemed patentable for at least the reasons stated above with respect to independent claim 21.

Secondly, the Appellants contend that the combination of Ehreth, Schultheiss, and Martin does not teach or suggest a unitary residential gateway device capable of receiving a plurality of channel selection commands from a plurality of remote control devices, wherein the residential gateway receives the channel select commands from a remote antennae module. Moreover, even if Ehreth, Schultheiss, and Martin suggested the aforementioned limitation, the Appellants submit there is no motivation to combine these references. Thus, the Appellants respectfully submit that claim 27 is patentable under the provisions of 35 U.S.C. §103.

14. Claim 28

Claim 28 stands rejected under 35 U.S.C. §103 as being unpatentable over Ehreth in view of Schultheiss in further view of Martin. The Appellants respectfully disagree.

The Appellants submit that Ehreth, Schultheiss, and Martin do not, in any permissible combination, teach, show, or suggest all of the limitations of independent claim 21. Since Ehreth in view of Schultheiss in further view of Martin does not make obvious the Appellants' invention as recited in Appellants' independent claim 21, dependent claim 28 is also not made obvious since the claim depends indirectly from claim 21 and recites additional features of the present invention. Thus, claim 28 should be deemed patentable for at least the reasons stated above with respect to independent claim 21.

Secondly, the Appellants contend that the combination of Ehreth, Schultheiss, and Martin does not teach or suggest a unitary residential gateway device capable of receiving a plurality of channel selection commands from a plurality of remote control devices, wherein the residential gateway receives the channel select commands from a remote antennae module located within a media interface device. Moreover, even if Ehreth, Schultheiss, and Martin suggested the aforementioned limitation, the Appellants submit there is no motivation to combine these references. Thus, the Appellants respectfully submit that claim 28 is patentable under the provisions of 35 U.S.C. §103.

15. Claim 30

The Examiner rejected claim 30 as being unpatentable over Ehreth in view of Schultheiss in further view of Martin. The rejection is respectfully traversed.

The Examiner's attention is directed to the fact that Ehreth, Schultheiss and Martin (either singly or in any permissible combination) fail to disclose or suggest a method for receiving, decoding, and distribution video signals via a unitary residential gateway capable of directly receiving channel select commands from remote control devices associated with a plurality of televisions, as claimed in Appellants' independent claim 30. The Appellants' claim 30 positively recites:

> 30. A method for receiving signals from a telecommunications network, decoding the signals, and transmitting the decoded signals from a residential gateway to a plurality of devices including multiple televisions, the method comprising:
>
> connecting the residential gateway to the telecommunications network and to at least one television that is remotely located from the residential gateway and to a television that is located in close proximity to the residential gateway and connected directly thereto, wherein the residential gateway is a unitary device and is capable of directly receiving channel select commands from a plurality of remote control devices associated with said multiple televisions;
>
> selecting a television channel to view for the at least one television that is remotely located and/or selecting a television channel to view for the television that is located in close proximity, wherein the selecting a channel to view for the at least one television that is remotely located is performed by programming associated optical remote control devices, wherein the optical remote control devices transmit channel select commands as optical signals to optical conversion devices connected to the at least one television, the optical conversion devices receive the optical signals, convert the optical signals to RF signals and transmit the RF signals over media to a remote antennae module which demodulates the RF signals and extracts the portion corresponding to the channel select commands, wherein the selecting a television channel to view for the television that is located in close proximity is performed by programming an associated optical remote control device that transmits channel select commands directly to the residential gateway;
>
> transmitting the channel select commands to the telecommunications network;
>
> receiving a video signal from the telecommunications network;
>
> processing the video signal to produce television signals corresponding to the channel select commands; wherein the processing is preformed by a video processor; and
>
> transmitting the television signals to the at least one television. (Emphasis added)

The deficiency left by the combination of Ehreth and Schultheiss is not bridged by Martin. The Appellants contend that Martin does not teach or suggest a unitary residential gateway device that can directly receive multiple channel selection commands from a plurality of remote controls associated with a plurality of televisions, as claimed in independent claim 30. Therefore, the Appellants submit that independent claim 30 fully satisfies the requirements of 35 U.S.C. §103 and is patentable thereunder.

16. Claim 31

The Examiner rejected claim 31 as being unpatentable over Ehreth in view of Schultheiss in further view of Martin. The rejection is respectfully traversed.

The Examiner's attention is directed to the fact that Ehreth, Schultheiss and Martin (either singly or in any permissible combination) fail to disclose or suggest a method for receiving, decoding, and distribution video signals via a unitary residential gateway capable of directly receiving channel select commands from remote control devices associated with a plurality of televisions, as claimed in Appellants' independent claim 31. The Appellants' claim 31 positively recites:

> 31. A residential gateway for receiving and decoding signals from a telecommunications network and transmitting decoded signals to a plurality of devices including multiple televisions, the residential gateway comprising:
> a network interface module for transmitting upstream signals, including channel select commands, to the telecommunications network and receiving downstream signals, including video signals, from the telecommunications network;
> a video processor for processing the video signals into at least one television signal corresponding to at least one channel select command, and transmitting the at least one television signal to the corresponding television;
> a remote control module for processing the channel select commands, wherein at least one of the channel select commands is extracted from a RF signal received from an optical conversion device connected to a remotely located television; and
> a wireless receiver for receiving wireless channel select commands directly from a first remote control device associated with a first television that is located in close proximity to the residential gateway, wherein the residential gateway is a unitary device and is capable of directly receiving channel select commands from a plurality of remote control devices associated with said multiple televisions, and connected directly thereto. (Emphasis added)

The deficiency left by the combination of Ehreth and Schultheiss is not bridged by Martin. The Appellants contend that Martin does not teach or suggest a unitary residential gateway device that can directly receive multiple channel selection commands from a plurality of remote controls associated with a plurality of televisions, as claimed in independent claim 31 and absent from Ehreth and Schultheiss. Therefore, the Appellants submit that independent claim 31 fully satisfies the requirements of 35 U.S.C. §103 and is patentable thereunder.

17. Claim 32

Claim 32 stands rejected under 35 U.S.C. §103 as being unpatentable over Ehreth in view of Schultheiss in further view of Martin. The Appellants respectfully disagree.

The Appellants submit that Ehreth, Schultheiss, and Martin do not, in any permissible combination, teach, show, or suggest all of the limitations of independent claim 31. Since Ehreth in view of Schultheiss in further view of Martin does not make obvious the Appellants' invention as recited in Appellants' independent claim 31, dependent claim 32 is also not made obvious since the claim depends directly from claim 31 and recites additional features of the present invention. Thus, claim 32 should be deemed patentable for at least the reasons stated above with respect to independent claim 31.

Secondly, the Appellants contend that the combination of Ehreth, Schultheiss, and Martin does not teach or suggest a unitary residential gateway device capable of receiving a plurality of optical channel selection commands from a plurality of optical remote control devices, wherein a remote antennae module extracts the channel select commands from an RF signal. Moreover, even if Ehreth, Schultheiss, and Martin suggested the aforementioned limitation, the Appellants submit there is no motivation to combine these references. Thus, the Appellants respectfully submit that claim 32 is patentable under the provisions of 35 U.S.C. §103.

18. Claim 33

The Examiner rejected claim 33 as being unpatentable over Ehreth in view of Schultheiss in further view of Martin. The rejection is respectfully traversed

The Examiner's attention is directed to the fact that Ehreth, Schultheiss and Martin (either singly or in any permissible combination) fail to disclose or suggest a method for receiving, decoding, and distribution video signals via a unitary residential gateway capable of directly receiving channel select commands from remote control devices associated with a plurality of televisions, as claimed in Appellants' independent claim 33. The Appellants' claim 33 positively recites:

> 33. A system including a residential gateway for receiving and decoding signals from a telecommunications network and transmitting the decoded signals to a plurality of devices including multiple televisions, the system comprising:
>
> a residential gateway located in close proximity to and connected to a television, said residential gateway including a network interface module for transmitting upstream signals, including channel select commands, to the telecommunications network and receiving downstream signals, including video signals, from the telecommunications network, wherein the residential gateway is a unitary device and is capable of directly receiving channel select commands from a plurality of remote control devices associated

with said multiple televisions;

a video processor, located the residential gateway, for processing the video signals to generate television signals corresponding to said channel select commands, and transmitting the television signals to the corresponding televisions;

at least one optical conversion device located in close proximity to and connected to a remotely located television, said optical conversion device receiving an optical signal, including a channel select command, from an optical remote control device associated with the remotely located television, converting the optical signal to an RF signal, and modulating the RF signal over media, wherein the television located in close proximity to the residential gateway is not connected to an optical conversion device; and

a remote antennae module, connected to the media and the residential gateway, for demodulating the RF signal, extracting the portion corresponding to the channel select command, and transmitting the channel select command to the residential gateway. (Emphasis added)

The deficiency left by the combination of Ehreth and Schultheiss is not bridged by Martin. The Appellants contend that Martin does not teach or suggest a unitary residential gateway device that can directly receive multiple channel selection commands from a plurality of remote controls associated with a plurality of televisions, as claimed in independent claim 33. Therefore, the Appellants submit that independent claim 33 fully satisfies the requirements of 35 U.S.C. §103 and is patentable thereunder.

19. Claim 36

Claim 36 stands rejected under 35 U.S.C. §103 as being unpatentable over Ehreth in view of Schultheiss in further view of Martin. The Appellants respectfully disagree.

The Appellants submit that Ehreth, Schultheiss, and Martin do not, in any permissible combination, teach, show, or suggest all of the limitations of independent claim 33. Since Ehreth in view of Schultheiss in further view of Martin does not make obvious the Appellants' invention as recited in Appellants' independent claim 33, dependent claim 36 is also not made obvious since the claim depends directly from claim 33 and recites additional features of the present invention. Thus, claim 36 should be deemed patentable for at least the reasons stated above with respect to independent claim 33.

Secondly, the Appellants contend that the combination of Ehreth, Schultheiss, and Martin does not teach or suggest a unitary residential gateway device capable of receiving a plurality of channel selection commands from a plurality of remote control devices, wherein the residential gateway receives the channel select commands from a

remote antennae module that is an integral part of a media interface device. Moreover, even if Ehreth, Schultheiss, and Martin suggested the aforementioned limitation, the Appellants submit there is no motivation to combine these references. Thus, the Appellants respectfully submit that claim 36 is patentable under the provisions of 35 U.S.C. §103.

C. 35 U.S.C. §103(a) – Ehreth in view of Schultheiss in further view of Martin in further view of Martinez

1. Claim 12

The Examiner rejected claim 12 as being unpatentable over the Ehreth in view of Schultheiss in further view of Martin in further view of Martinez (United States patent 5,812,184, hereinafter Martinez). The rejection is respectfully traversed.

Ehreth, Schultheiss, and Martin are discussed above.

Martinez teaches a bidirectional cable television system that provides for the transmission of signals from cable subscribers downlink in the same direction as the ensemble of television channels which the cable television system is already constructed to deliver. The subscriber signals may be transmitted over the cable in the blanking intervals of a cable television channel (see Martinez, Abstract). The Examiner alleges that Martinez discloses a bias switch turning on and off an oscillator, which in turn produces a modulated radio frequency signal that turns on and off in response to the switch.

The Appellants submit that Martinez does not bridge the substantial gap existing between the Appellants' invention and the combination of Ehreth, Schultheiss, and Martin. More specifically, the Appellants contend that Martinez does not teach, suggest, or mention a residential gateway that is a unitary residential gateway device which is capable of directly receives channel select commands from remote control devices associated with the plurality of televisions as set forth in claim 9. Thus, the Appellants submit that claim 9 would not be made obvious by the teaching of Ehreth in view of Schultheiss in further view of Martin in further view of Martinez.

Since claim 12 depends indirectly from claim 9 and recites additional features thereof, the Appellants submit that claim 12 is also not made obvious by the teaching of

Ehreth in view of Schultheiss in further view of Martin in further view of Martinez. Therefore, the Appellants submit that claim 12 also fully satisfies the requirements of 35 U.S.C. §103 and is patentable thereunder.

Secondly, the Appellants contend that the combination of Ehreth, Schultheiss, Martin, and Martinez does not teach or suggest an optical conversion device with a bias switch that turns off and on in response to a pulse train generated by an optical receiver. Moreover, even if Ehreth, Schultheiss, Martin, and Martinez suggested the aforementioned limitation, the Appellants submit there is no motivation to combine these references. Thus, the Appellants respectfully submit that claim 12 is patentable under the provisions of 35 U.S.C. §103.

2. Claim 13

Claim 13 stands rejected under 35 U.S.C. §103 as being unpatentable over Ehreth in view of Schultheiss in further view of Martin in further view of Martinez. The Appellants respectfully disagree.

The Appellants submit that Ehreth, Schultheiss, Martin and Martinez do not, in any permissible combination, teach, show, or suggest all of the limitations of independent claim 9. Since Ehreth in view of Schultheiss in further view of Martin in further view of Martinez does not make obvious the Appellants' invention as recited in Appellants' independent claim 9, dependent claim 13 is also not made obvious since the claim depends indirectly from claim 9 and recites additional features of the present invention. Thus, claim 13 should be deemed patentable for at least the reasons stated above with respect to independent claim 9.

Secondly, the Appellants contend that the combination of Ehreth, Schultheiss, Martin, and Martinez does not teach or suggest an optical conversion device, which includes an attenuator for reducing the amplitude of an RF signal, with a bias switch that turns off and on in response to a pulse train generated by an optical receiver. Moreover, even if Ehreth, Schultheiss, Martin, and Martinez suggested the aforementioned limitation, the Appellants submit there is no motivation to combine these references. Thus, the Appellants respectfully submit that claim 13 is patentable under the provisions of 35 U.S.C. §103.

3. Claim 34

The Examiner rejected claim 34 as being unpatentable over the Ehreth in view of Schultheiss in further view of Martin in further view of Martinez. The rejection is respectfully traversed.

The Appellants submit that Martinez does not bridge the substantial gap existing between the Appellants' invention and the combination of Ehreth, Schultheiss, and Martin. More specifically, the Appellants contend that Martinez does not teach, suggest, or mention a residential gateway that is a unitary residential gateway device that is capable of directly receives channel select commands from remote control devices associated with the plurality of televisions as set forth in claim 33. Thus, the Appellants submit that claim 33 would not be made obvious by the teaching of Ehreth in view of Schultheiss in further view of Martin in further view of Martinez.

Since claim 34 depends directly from claim 33 and recites additional features thereof, the Appellants submit that claim 34 is also not made obvious by the teaching of Ehreth in view of Schultheiss in further view of Martin in further view of Martinez. Therefore, the Appellants submit that claim 34 also fully satisfies the requirements of 35 U.S.C. §103 and is patentable thereunder.

Secondly, the Appellants contend that the combination of Ehreth, Schultheiss, Martin, and Martinez does not teach or suggest an optical conversion device with a bias switch that turns off and on in response to a pulse train generated by an optical receiver. Moreover, even if Ehreth, Schultheiss, Martin, and Martinez suggested the aforementioned limitation, the Appellants submit there is no motivation to combine these references. Thus, the Appellants respectfully submit that claim 34 is patentable under the provisions of 35 U.S.C. §103.

4. Claim 35

Claim 35 stands rejected under 35 U.S.C. §103 as being unpatentable over Ehreth in view of Schultheiss in further view of Martin in further view of Martinez. The Appellants respectfully disagree.

The Appellants submit that Ehreth, Schultheiss, Martin and Martinez do not, in any permissible combination, teach, show, or suggest all of the limitations of independent claim 33. Since Ehreth in view of Schultheiss in further view of Martin in further view of Martinez does not make obvious the Appellants' invention as recited in Appellants' independent claim 33, dependent claim 35 is also not made obvious since the claim depends indirectly from claim 33 and recites additional features of the present invention. Thus, claim 35 should be deemed patentable for at least the reasons stated above with respect to independent claim 33.

Secondly, the Appellants contend that the combination of Ehreth, Schultheiss, Martin, and Martinez does not teach or suggest an optical conversion device, which includes an attenuator for reducing the amplitude of an RF signal, with a bias switch that turns off and on in response to a pulse train generated by an optical receiver. Moreover, even if Ehreth, Schultheiss, Martin, and Martinez suggested the aforementioned limitation, the Appellants submit there is no motivation to combine these references. Thus, the Appellants respectfully submit that claim 35 is patentable under the provisions of 35 U.S.C. §103.

D. 35 U.S.C. §103(a) – Ehreth in view of Schultheiss in further view of Martin in further view of Budow

1. Claim 18

The Examiner rejected claim 18 as being unpatentable over Ehreth in view of Schultheiss in further view of Martin in further view of Budow et al. (United States patent 5,521,631, hereinafter Budow). The rejection is respectfully traversed.

Ehreth, Schultheiss, and Martin are discussed above. The Examiner alleges that Budow discloses a diplexer that is used to pass television signals directly to the television unit.

The Appellants submit that Budow does not bridge the substantial gap existing between the Appellants' invention and the combination of Ehreth, Schultheiss, and Martin. More specifically, the Appellants contend that Budow does not teach, suggest, or mention a residential gateway that is a unitary residential gateway device that directly receives channel select commands from remote control devices associated with the

plurality of televisions as set forth in claim 9. Thus, the Appellants submit that claim 9 would not be made obvious by the teaching of Ehreth in view of Schultheiss in further view of Martin in further view of Budow.

Since claim 18 depends indirectly from claim 9 and recites additional features thereof, the Appellants submit that claim 18 is also not made obvious by the teaching of Ehreth in view of Schultheiss in further view of Martin in further view of Budow. Therefore, the Appellants submit that claim 18 also fully satisfies the requirements of 35 U.S.C. §103 and is patentable thereunder.

Secondly, the Appellants contend that the combination of Ehreth, Schultheiss, Martin, and Budow does not teach or suggest a unitary residential gateway device capable of receiving a plurality of channel selection commands from a plurality of remote control devices, wherein the residential gateway device includes a media interface device comprising a diplexer for extracting signals. Moreover, even if Ehreth, Schultheiss, Martin, and Budow suggested the aforementioned limitation, the Appellants submit there is no motivation to combine these references. Thus, the Appellants respectfully submit that claim 18 is patentable under the provisions of 35 U.S.C. §103.

2. Claim 37

The Examiner rejected claim 37 as being unpatentable over Ehreth in view of Schultheiss in further view of Martin in further view of Budow et al. (United States patent 5,521,631, hereinafter Budow). The rejection is respectfully traversed.

Ehreth, Schultheiss, and Martin are discussed above. The Examiner alleges that Budow discloses a diplexer that is used to pass television signals directly to the television unit.

The Appellants submit that Budow does not bridge the substantial gap existing between the Appellants' invention and the combination of Ehreth, Schultheiss, and Martin. More specifically, the Appellants contend that Budow does not teach, suggest, or mention a residential gateway that is a unitary residential gateway device that directly receives channel select commands from remote control devices associated with the plurality of televisions as set forth in claim 33. Thus, the Appellants submit that claim 33

would not be made obvious by the teaching of Ehreth in view of Schultheiss in further view of Martin in further view of Budow.

Since claim 37 depends directly from claim 33 and recites additional features thereof, the Appellants submit that claim 37 is also not made obvious by the teaching of Ehreth in view of Schultheiss in further view of Martin in further view of Budow. Therefore, the Appellants submit that claim 37 also fully satisfies the requirements of 35 U.S.C. §103 and is patentable thereunder.

Secondly, the Appellants contend that the combination of Ehreth, Schultheiss, Martin, and Budow does not teach or suggest a unitary residential gateway device capable of receiving a plurality of channel selection commands from a plurality of remote control devices, wherein the residential gateway device is connected to a remote antennae module, which includes a media interface device comprising a diplexer for extracting signals. Moreover, even if Ehreth, Schultheiss, Martin, and Budow suggested the aforementioned limitation, the Appellants submit there is no motivation to combine these references. Thus, the Appellants respectfully submit that claim 37 is patentable under the provisions of 35 U.S.C. §103.

E. 35 U.S.C. §103(a) – Ehreth in view of Schultheiss in further view of Martin in further view of Budow in further view of Flickinger

1. Claim 19

The Examiner rejected claim 19 as being unpatentable over the Ehreth in view of Schultheiss in further view of Martin in further view of Budow in further view of Flickinger et al. (United States patent 5,901,340, hereinafter Flickinger). The rejection is respectfully traversed.

Ehreth, Schultheiss, Martin, and Budow are discussed above. The Examiner alleges that Flickinger discloses a diplexer that is used to pass television signals directly to the television unit.

The Appellants submit that Flickinger does not bridge the substantial gap existing between the Appellants' invention and the combination of Ehreth, Schultheiss, Martin, and Budow. More specifically, the Appellants contend that Flickinger does not teach,

suggest, or mention a residential gateway that is a unitary residential gateway device that directly receives channel select commands from remote control devices associated with the plurality of televisions as set forth in claim 9. Thus, the Appellants submit that claim 9 would not be made obvious by the teaching of Ehreth in view of Schultheiss in further view of Martin in further view of Budow in further view of Flickinger.

Since claim 19 depends indirectly from claim 9 and recites additional features thereof, the Appellants submit that claim 19 is also not made obvious by the teaching of Ehreth in view of Schultheiss in further view of Martin in further view of Budow in further view of Flickinger. Therefore, the Appellants submit that claim 19 also fully satisfies the requirements of 35 U.S.C. §103 and is patentable thereunder.

Secondly, the Appellants contend that the combination of Ehreth, Schultheiss, Martin, Budow, and Flickinger does not teach or suggest a unitary residential gateway device capable of receiving a plurality of channel selection commands from a plurality of remote control devices, wherein the residential gateway device receives RF signals from an optical conversion device that is coupled to a media interface device that comprises a balun. Moreover, even if Ehreth, Schultheiss, Martin, Budow, and Flickinger suggested the aforementioned limitation, the Appellants submit there is no motivation to combine these references. Thus, the Appellants respectfully submit that claim 19 is patentable under the provisions of 35 U.S.C. §103.

2. Claim 38

The Examiner rejected claim 38 as being unpatentable over the Ehreth in view of Schultheiss in further view of Martin in further view of Budow in further view of Flickinger et al. (United States patent 5,3301,340, hereinafter Flickinger). The rejection is respectfully traversed.

Ehreth, Schultheiss, Martin, and Budow are discussed above. The Examiner alleges that Flickinger discloses a diplexer that is used to pass television signals directly to the television unit.

The Appellants submit that Flickinger does not bridge the substantial gap existing between the Appellants' invention and the combination of Ehreth, Schultheiss, Martin, and Budow. More specifically, the Appellants contend that Flickinger does not teach,

suggest, or mention a residential gateway that is a unitary residential gateway device that directly receives channel select commands from remote control devices associated with the plurality of televisions as set forth in claim 33. Thus, the Appellants submit that claim 33 would not be made obvious by the teaching of Ehreth in view of Schultheiss in further view of Martin in further view of Budow in further view of Flickinger.

Since claim 38 depends indirectly from claim 33 and recites additional features thereof, the Appellants submit that claim 38 is also not made obvious by the teaching of Ehreth in view of Schultheiss in further view of Martin in further view of Budow in further view of Flickinger. Therefore, the Appellants submit that claim 38 also fully satisfies the requirements of 35 U.S.C. §103 and is patentable thereunder.

Secondly, the Appellants contend that the combination of Ehreth, Schultheiss, Martin, Budow, and Flickinger does not teach or suggest a unitary residential gateway device capable of receiving a plurality of channel selection commands from a plurality of remote control devices, wherein the residential gateway device is connected to a remote antennae module, which is an integral part of a media interface device that comprises a balun. Moreover, even if Ehreth, Schultheiss, Martin, Budow, and Flickinger suggested the aforementioned limitation, the Appellants submit there is no motivation to combine these references. Thus, the Appellants respectfully submit that claim 38 is patentable under the provisions of 35 U.S.C. §103.

F. 35 U.S.C. §102(e) – Martinez

1. Claim 39

The Examiner rejected claim 39 as being anticipated by Martinez. The rejection is respectfully traversed.

Martinez teaches a bidirectional cable television system that provides for the transmission of signals from cable subscribers downlink in the same direction as the ensemble of television channels which the cable television system is already constructed to deliver. The subscriber signals may be transmitted over the cable in the blanking intervals of a cable television channel (see Martinez, Abstract). The Examiner alleges that Martinez discloses an optical conversion device that comprises a bias switch as claimed by the Appellants. The Appellants respectfully disagree.

The Examiner's attention is directed to the fact that Martinez fails to teach or disclose an optical conversion device comprising a bias switch that turns on and off in response to a pulse train generated from a corresponding optical signal, as positively claimed by the Appellants in claim 39. Specifically, the Appellants' independent claim 39 positively recites:

> 39. An optical conversion device for receiving optical signals, converting the optical signals to RF signals, and transmitting the RF signals over media, the optical conversion device comprising:
> an optical receiver for detecting the optical signal and generating a corresponding pulse train;
> a bias switch connected to said optical receiver, said bias switch turning on and off in response to the pulse train;
> an oscillator connected to said bias switch for producing a modulated RF signal, the modulated RF signal being produced by said oscillator turning on and off in response to said bias switch; and
> a diplexer filter for directionally injecting the RF signal onto the media. (Emphasis added)

The Appellants submit that Martinez does not teach each and every element of the Appellants' invention as recited in claim 39. Namely, Martinez does not teach or suggest a bias switch that turns on and off in response to a pulse train. This pulse train is generated from the original optical signal received by the optical conversion device as set forth in claim 39. Conversely, the AND gate described in Martinez is not turned on and off in response to a like pulse train. Rather, the AND gate is activated/deactivated by a gating signal (see Martinez, column 9, lines 15-16). Notably, this gating signal is not generated by the optical signal (e.g., the "viewer response signal" described in Martinez) received by the optical conversion device from a remote controller, but instead is generated by the TDM slot selector 29.

Since Martinez does not teach a bias switch that turns on and off in response to the pulse train as set forth in claim 39, Martinez does not teach each and every element of Appellants' invention. Therefore, the Appellants contend that claim 39 is not anticipated by Martinez and, as such, fully satisfies the requirements of 35 U.S.C. §102.

2. Claim 41

Claim 41 stands rejected under 35 U.S.C. §102 as being anticipated by Martinez. The Appellants respectfully disagree.

The Appellants submit that Martinez does not teach, show, or suggest all of the limitations of independent claim 39. Since Martinez does not anticipate the Appellants' invention as recited in Appellants' independent claim 39, dependent claim 41 is also not anticipated since the claim depends directly from claim 39 and recites additional features of the present invention. Thus, claim 41 should be deemed patentable for at least the reasons stated above with respect to independent claim 39.

Secondly, the Appellants contend that Martinez does not teach or mention an optical conversion device that comprises a bias switch that turns on and off in response to a pulse train as well as being connected to a television and receiving optical signal corresponding to channel select commands from a remote control device. Thus, the Appellants respectfully submit that claim 41 is patentable under the provisions of 35 U.S.C. §102.

3. Claim 42

Claim 42 stands rejected under 35 U.S.C. §102 as being anticipated by Martinez. The Appellants respectfully disagree.

The Appellants submit that Martinez does not teach, show, or suggest all of the limitations of independent claim 39. Since Martinez does not anticipate the Appellants' invention as recited in Appellants' independent claim 39, dependent claim 42 is also not anticipated since the claim depends indirectly from claim 39 and recites additional features of the present invention. Thus, claim 42 should be deemed patentable for at least the reasons stated above with respect to independent claim 39.

Secondly, the Appellants contend that Martinez does not teach or mention an optical conversion device that comprises a bias switch that turns on and off in response to a pulse train as well as being having a diplexer filter that injects an RF signal onto media in the direction of a residential gateway. Thus, the Appellants respectfully submit that claim 42 is patentable under the provisions of 35 U.S.C. §102.

4. Claim 43

Claim 43 stands rejected under 35 U.S.C. §102 as being anticipated by Martinez. The Appellants respectfully disagree.

The Appellants submit that Martinez does not teach, show, or suggest all of the limitations of independent claim 39. Since Martinez does not anticipate the Appellants' invention as recited in Appellants' independent claim 39, dependent claim 43 is also not anticipated since the claim depends directly from claim 39 and recites additional features of the present invention. Thus, claim 43 should be deemed patentable for at least the reasons stated above with respect to independent claim 39.

Secondly, the Appellants contend that Martinez does not teach or mention an optical conversion device that comprises a bias switch that turns on and off in response to a pulse train as well as having a diplexer filter for directionally injecting an RF signal on a coaxial cable.. Thus, the Appellants respectfully submit that claim 43 is patentable under the provisions of 35 U.S.C. §102.

5. Claim 44

The Examiner rejected claim 44 as being anticipated by Martinez. The rejection is respectfully traversed.

The Examiner's attention is directed to the fact that Martinez fails to teach or disclose an optical conversion device comprising a bias switch that turns on and off in response to a pulse train generated from a corresponding optical signal, as positively claimed by the Appellants in claim 44. Specifically, the Appellants' independent claim 44 positively recites:

> 44. An optical conversion device for receiving optical signals representing channel select commands from an optical remote control device associated with a television, converting the optical signal to an RF signal, and transmitting the RF signal over media to a residential gateway, the optical conversion device comprising:
> an optical receiver for detecting the optical signal and generating a corresponding pulse train;
> a bias switch connected to said optical receiver, <u>said bias switch turning on and off in response to the pulse train</u>;
> an oscillator connected to said bias switch for producing a modulated RF signal, the modulated RF signal being produced by said oscillator turning on and off in response to said bias switch; and
> a diplexer filter for injecting the RF signal onto the media in the direction of the residential gateway. (Emphasis added)

The Appellants submit that Martinez does not teach each and every element of the Appellants' invention as recited in claim 44. Namely, Martinez does not teach or suggest a bias switch that turns on and off in response to a pulse train. This pulse train is generated from the original optical signal received by the optical conversion device as set forth in claim 44. Conversely, the AND gate described in Martinez is not turned on and off in response to a like pulse train. Rather, the AND gate is activated/deactivated by a gating signal (see Martinez, column 9, lines 15-16). Notably, this gating signal is not generated by the optical signal (e.g., the "viewer response signal" described in Martinez) received by the optical conversion device from a remote controller, but instead is generated by the TDM slot selector 29.

Since Martinez does not teach a bias switch that turns on and off in response to the pulse train as set forth in claim 44, Martinez does not teach each and every element of Appellants' invention. Therefore, the Appellants contend that claim 44 is not anticipated by Martinez and, as such, fully satisfies the requirements of 35 U.S.C. §102.

E. 35 U.S.C. §103(a) – Martinez

1. Claim 40

Claim 40 stands rejected as being obvious in view of the Martinez patent. The Appellants respectfully traverse the rejection.

The Examiner's attention is directed to the fact that Martinez in view of the Official Notice fails to disclose or suggest a bias switch that turns on and off in response to a pulse train, where the pulse train is generated from a corresponding optical signal received from an optical remote controller as claimed in Appellants' independent claim 39, from which claim 40 depends. As discussed above, Martinez only teaches an AND gate which is turned on/off by a gating signal that is not tantamount to a pulse train. Therefore, the Appellants submit that independent claim 39 fully satisfies the requirements of 35 U.S.C. §103 and is patentable thereunder.

Since claim 40 depends directly from claim 39 and recites additional features thereof, the Appellants submit that claim 40 is also not made obvious by the teaching of

Martinez. Therefore, the Appellants submit that claim 40 also fully satisfies the requirements of 35 U.S.C. §103 and is patentable thereunder.

Secondly, the Appellants contend that Martinez does not suggest or mention an optical conversion device that comprises a bias switch that turns on and off in response to a pulse train as well as further comprising an attenuator for reducing the amplitude of an RF signal. Thus, the Appellants respectfully submit that claim 40 is patentable under the provisions of 35 U.S.C. §103.

2. Claim 45

Claim 45 stands rejected as being obvious in view of the Martinez patent. The Appellants respectfully traverse the rejection.

The Examiner's attention is directed to the fact that Martinez in view of the Official Notice fails to disclose or suggest a bias switch that turns on and off in response to a pulse train, where the pulse train is generated from a corresponding optical signal received from an optical remote controller as claimed in Appellants' independent claim 44, from which claim 45 depends. As discussed above, Martinez only teaches an AND gate which is turned on/off by a gating signal that is not tantamount to a pulse train. Therefore, the Appellants submit that independent claim 44 fully satisfies the requirements of 35 U.S.C. §103 and is patentable thereunder.

Since claim 45 depends directly from claim 44 and recites additional features thereof, the Appellants submit that claim 45 is also not made obvious by the teaching of Martinez. Therefore, the Appellants submit that claim 45 also fully satisfies the requirements of 35 U.S.C. §103 and is patentable thereunder.

Secondly, the Appellants contend that Martinez does not suggest or mention an optical conversion device that comprises a bias switch that turns on and off in response to a pulse train as well as further comprising an attenuator for reducing the amplitude of an RF signal. Thus, the Appellants respectfully submit that claim 45 is patentable under the provisions of 35 U.S.C. §103.

CONCLUSION

For the reasons advanced above, Appellants respectfully urge that the rejections of claims 1-9, 11-38, 40, and 45 as being unpatentable under 35 U.S.C. §103 and the rejections of claims 39 and 41-44 as being unpatentable under 35 U.S.C. §102 are improper. Reversal of the rejections in this appeal is respectfully requested. If necessary, please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account No. 20-0782/MOTO/NLCP754, and please credit any excess fees to the above referenced deposit account.

Respectfully submitted,

7/11/05

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CLAIMS APPENDIX

1. A method of receiving, decoding and distributing video signals from telecommunications network to a plurality of televisions locatable in at least two separate locations via a residential gateway, the method comprising:

receiving channel select commands from remote control devices associated with the plurality of televisions, wherein at least a first channel select command of said channel select commands from an optical remote control device of said remote control devices associated with a television of said plurality of televisions located in close proximity to the residential gateway is received directly by a receiver within the residential gateway, wherein the residential gateway is a unitary device;

receiving a video signal from the telecommunications network;

transmitting the video signal to a video processor;

processing the video signal to produce television signals corresponding to the channel select commands; and

transmitting the television signals to the respective televisions.

2. The method of claim 1, wherein the receiver within the residential gateway is an optical receiver.

3. The method of claim 1, wherein receiving said channel select commands includes receiving channel select commands for televisions remotely located from the residential gateway over media connecting the remotely located televisions to the residential gateway.

4. The method of claim 3, wherein receiving channel select commands for televisions remotely located includes:

transmitting optical signals, including the channel select commands, from optical remote control devices associated with the remotely located televisions to optical receivers located in close proximity to and coupled to the remotely located televisions;

detecting the optical signals and generating corresponding demodulated pulse trains at the optical receivers;

transmitting the pulse trains to RF transmitters;

receiving the pulse train and generating corresponding RF signals at the RF transmitter; and

transmitting the RF signals from the RF transmitters to the residential gateway over media.

5. The method of claim 4, wherein said transmitting the RF signals from the RF transmitters includes:

transmitting the RF signals from the RF transmitters to a remote antennae module over the media, the media connecting the remotely located televisions to the remote antennae module;

extracting the channel select commands from the RF signals received at the remote antennae module; and

transmitting the channel select commands from the remote antennae module to the residential gateway.

6. The method of claim 5, wherein the media is a coaxial cable.

7. The method of claim 4, wherein said transmitting the RF signals from the RF transmitters includes:

transmitting the RF signal from the RF transmitters to a media interface device over the media, the media connecting the remotely located televisions to the media interface device;

receiving the RF signals at the media interface device;

extracting the channel select commands from the RF signals received at the media interface device; and

transmitting the channel select commands from the media interface device to the residential gateway.

8. The method of claim 4, wherein the optical remote control devices are infrared remote control devices and the optical signals are infrared signals.

9. A residential gateway for distributing video signals to a plurality of televisions locatable within at least two separate locations, said residential gateway comprising:

a receiver for directly receiving a first channel select command of a plurality of channel select commands from a first remote control device of a plurality of remote control devices associated with a first television of said plurality of televisions, wherein said receiver is an optical receiver, the first channel select command is an optical signal, the first remote control device is an optical remote control device, and the first television is located in close proximity to the residential gateway, wherein the residential gateway is a unitary device and is capable of directly receiving said plurality of channel select commands from said plurality of remote control devices associated with said plurality of televisions;

a remote control processor for processing said plurality of channel select commands;

a network interface module for receiving signals, including video signals, from a telecommunications network, wherein the received video signals correspond to the plurality of channel select commands;

a video processor for processing the received video signals to produce television signals; and

a transmitter for transmitting the received video signals to said video processor.

10. (Cancelled)

11. The residential gateway of claim 9, further comprising optical conversion devices in close proximity to and coupled to televisions that are remotely located from the residential gateway, said optical conversion devices

receiving optical signals, including channel select commands, from optical

remote control devices associated with the remotely located televisions;

converting the optical signals to RF signals; and

transmitting the RF signals to residential gateway over media.

12. The residential gateway of claim 11, wherein said optical conversion devices include:

an optical receiver for detecting the optical signal and generating a corresponding pulse train;

a bias switch connected to said optical receiver, said bias switch turning on and off in response to the pulse train;

an oscillator connected to said bias switch for producing a modulated RF signal, the modulated RF signal being produced by said oscillator turning on and off in response to said bias switch; and

a diplexer filter for injecting the RF signal onto the media in the direction of the residential gateway.

13. The residential gateway of claim 12, wherein said optical conversion device further includes an attenuator connected between said oscillator and said diplexer for reducing the amplitude of the RF signal.

14. The residential gateway of claim 11, further comprising a remote antennae module coupled to said optical conversion device with the media, said remote antennae module receiving the RF signals and extracting the channel select commands from the RF signals.

15. The residential gateway of claim 14, wherein the media is a coaxial cable.

16. The residential gateway of claim 14, wherein said remote antennae module extracts the channel select commands from the RF signal as 1 KHz signal.

17. The residential gateway of claim 11, further comprising a media interface device coupled to said optical conversion device with the media, said media interface device receiving the RF signals and extracting the channel select commands from the RF signals.

18. The residential gateway of claim 17, wherein said media interface device includes a diplexer for extracting other signals from the media, the other signals having been transported over the same media as the channel select commands.

19. The residential gateway of claim 18, wherein said media interface device further includes a balun so that the impedance of a subset of the other signals can be adjusted so that the subset of the other signals can be processed by the residential gateway.

20. The residential gateway of claim 17, wherein said receiver said media interface device is directly connected to the residential gateway.

21. A method for receiving and decoding signals from a telecommunications network at a residential gateway, and transmitting the decoded signals from the residential gateway to a plurality of devices including multiple televisions, the method comprising:

connecting each of the plurality of devices and the telecommunications network to the residential gateway so that all of the communications between the devices and the telecommunications network must pass through the residential gateway, wherein the residential gateway is a unitary device;

selecting televisions to view for the multiple televisions by programming associated remote control devices to transmit channel select commands, wherein a first channel select command is received from a first remote control device, associated with a first television, directly by a receiver within the residential gateway, wherein the first television is located in close proximity to the residential gateway and connected directly

to the residential gateway;

transporting the channel select commands to a network interface module;

transmitting the channel select commands from the network interface module to the telecommunications network;

receiving video signals from the telecommunications network at the network interface module;

transmitting the video signals to a video processor;

processing the video signals into television signals corresponding to the channel select commands; and

transmitting the television signals to the corresponding televisions including the first television.

22. The method of claim 21, wherein said connecting each of the plurality of devices and the telecommunications network to the residential gateway includes connecting the first television located in close proximity to the residential gateway to the residential gateway with S-video cables.

23. The method of claim 21, wherein said connecting each of the plurality of devices and the telecommunications network to the residential gateway includes connecting televisions remotely located from the residential gateway to the residential gateway via optical conversion devices located in close proximity to and connected to the remotely located televisions, media, and a remote antennae module connected to each of the optical conversion devices with the media and connected to the residential gateway.

24. The method of claim 21, wherein said selecting a television channel includes selecting a television channel for the first television located in close proximity to the residential gateway by programming the associated first remote control device, wherein the first remote control device is an optical remote control device which transmits an optical signal, including a channel select command, directly to the receiver within the

residential gateway.

25. The method of claim 21, wherein said selecting a television channel includes selecting a television channel for televisions remotely located from the residential gateway by programming associated optical remote control devices which transmit optical signals, including channel select commands.

26. The method of claim 25, wherein said programming associated optical remote control devices includes:

transmitting optical signals, including the channel select commands, from optical remote control devices associated with the remotely located televisions to optical receivers located in close proximity to and coupled to the remotely located televisions;

detecting the optical signals and generating demodulated pulse trains at the optical receivers;

transmitting the pulse trains to RF transmitters;

receiving the pulse trains and generating corresponding RF signals at the RF transmitters; and

transmitting the RF signals from the RF transmitters to the residential gateway over media.

27. The method of claim 26, wherein said transmitting the RF signals from the RF transmitters includes:

transmitting the RF signals from the RF transmitters to a remote antennae module over the media, the media connecting the remotely located televisions to the remote antennae module;

receiving the RF signals at the remote antennae module;

extracting the channel select commands from the RF signals received at the remote antennae module; and

transmitting the channel select commands from the remote antennae module to the residential gateway.

28. The method of claim 27, wherein the remote antennae module is located within a media interface device.

29. The method of claim 21, wherein said transmitting the television signals includes transmitting the television signals directly from the residential gateway to the first television as S-video signals.

30. A method for receiving signals from a telecommunications network, decoding the signals, and transmitting the decoded signals from a residential gateway to a plurality of devices including multiple televisions, the method comprising:

connecting the residential gateway to the telecommunications network and to at least one television that is remotely located from the residential gateway and to a television that is located in close proximity to the residential gateway and connected directly thereto, wherein the residential gateway is a unitary device and is capable of directly receiving channel select commands from a plurality of remote control devices associated with said multiple televisions;

selecting a television channel to view for the at least one television that is remotely located and/or selecting a television channel to view for the television that is located in close proximity, wherein the selecting a channel to view for the at least one television that is remotely located is performed by programming associated optical remote control devices, wherein the optical remote control devices transmit channel select commands as optical signals to optical conversion devices connected to the at least one television, the optical conversion devices receive the optical signals, convert the optical signals to RF signals and transmit the RF signals over media to a remote antennae module which demodulates the RF signals and extracts the portion corresponding to the channel select commands, wherein the selecting a television channel to view for the television that is located in close proximity is performed by programming an associated optical remote control device that transmits channel select commands directly to the residential gateway;

transmitting the channel select commands to the telecommunications network;

receiving a video signal from the telecommunications network;

processing the video signal to produce television signals corresponding to the channel select commands; wherein the processing is preformed by a video processor; and

transmitting the television signals to the at least one television.

31. A residential gateway for receiving and decoding signals from a telecommunications network and transmitting decoded signals to a plurality of devices including multiple televisions, the residential gateway comprising:

a network interface module for transmitting upstream signals, including channel select commands, to the telecommunications network and receiving downstream signals, including video signals, from the telecommunications network;

a video processor for processing the video signals into at least one television signal corresponding to at least one channel select command, and transmitting the at least one television signal to the corresponding television;

a remote control module for processing the channel select commands, wherein at least one of the channel select commands is extracted from a RF signal received from an optical conversion device connected to a remotely located television: and

a wireless receiver for receiving wireless channel select commands directly from a first remote control device associated with a first television that is located in close proximity to the residential gateway, wherein the residential gateway is a unitary device and is capable of directly receiving channel select commands from a plurality of remote control devices associated with said multiple televisions, and connected directly thereto.

32. The residential gateway of claim 31, wherein the RF signal is generated by the optical conversion device in response to an optical signal received from the optical remote control device, the optical conversion device transmitting the RF signal over cable to a remote antennae module which demodulates the RF signal and extracts the portion corresponding to the channel select commands.

33. A system including a residential gateway for receiving and decoding signals from a telecommunications network and transmitting the decoded signals to a plurality of devices including multiple televisions, the system comprising:

a residential gateway located in close proximity to and connected to a television, said residential gateway including a network interface module for transmitting upstream signals, including channel select commands, to the telecommunications network and receiving downstream signals, including video signals, from the telecommunications network, wherein the residential gateway is a unitary device and is capable of directly receiving channel select commands from a plurality of remote control devices associated with said multiple televisions;

a video processor, located the residential gateway, for processing the video signals to generate television signals corresponding to said channel select commands, and transmitting the television signals to the corresponding televisions;

at least one optical conversion device located in close proximity to and connected to a remotely located television, said optical conversion device receiving an optical signal, including a channel select command, from an optical remote control device associated with the remotely located television, converting the optical signal to an RF signal, and modulating the RF signal over media, wherein the television located in close proximity to the residential gateway is not connected to an optical conversion device; and

a remote antennae module, connected to the media and the residential gateway, for demodulating the RF signal, extracting the portion corresponding to the channel select command, and transmitting the channel select command to the residential gateway.

34. The system of claim 33, wherein said optical conversion device includes:

an optical receiver for detecting the optical signal and generating a corresponding pulse train;

a bias switch connected to said optical receiver, said bias switch turning on and

off in response to the pulse train;

an oscillator connected to said bias switch for producing a modulated RF signal in response to said bias switch turning on and off said oscillator; and

a diplexer filter for injecting the RF signal onto the media in the direction of the residential gateway.

35. The system of claim 34, wherein said optical conversion device further includes an attenuator connected between said oscillator and said diplexer for reducing the amplitude of the RF signal.

36. The system of claim 33, wherein said remote antennae module is an integral part of a media interface device.

37. The system of claim 33, wherein the media interface device further includes a diplexer for extracting other signals from the media, the other signals having been transported over the same media as the channel select commands.

38. The system of claim 37, wherein the media interface device further includes a balun so that the impedance of a subset of the other signals can be adjusted so that the subset of the other signals can be processed by the residential gateway.

39. An optical conversion device for receiving optical signals, converting the optical signals to RF signals, and transmitting the RF signals over media, the optical conversion device comprising:

an optical receiver for detecting the optical signal and generating a corresponding pulse train;

a bias switch connected to said optical receiver, said bias switch turning on and off in response to the pulse train;

an oscillator connected to said bias switch for producing a modulated RF signal, the modulated RF signal being produced by said oscillator turning on and off in

response to said bias switch; and

a diplexer filter for directionally injecting the RF signal onto the media.

40. The optical conversion device of claim 39, further comprising an attenuator connected between said oscillator and said diplexer for reducing the amplitude of the RF signal.

41. The optical conversion device of claim 39, wherein the optical conversion device is connected to a television and receives optical signals corresponding to channel select commands associated with the television from a corresponding remote control device.

42. The optical conversion device of claim 41, wherein said diplexer filter injects the RF signal onto the media in the direction of the direction of a residential gateway that controls communications between the television and a telecommunications network.

43. The optical conversion device of claim 39, wherein the media is a coaxial cable.

44. An optical conversion device for receiving optical signals representing channel select commands from an optical remote control device associated with a television, converting the optical signal to an RF signal, and transmitting the RF signal over media to a residential gateway, the optical conversion device comprising:

an optical receiver for detecting the optical signal and generating a corresponding pulse train;

a bias switch connected to said optical receiver, said bias switch turning on and off in response to the pulse train;

an oscillator connected to said bias switch for producing a modulated RF signal, the modulated RF signal being produced by said oscillator turning on and off in

response to said bias switch; and

a diplexer filter for injecting the RF signal onto the media in the direction of the residential gateway.

45. The optical conversion device of claim 44, further comprising an attenuator connected between said oscillator and said diplexer for reducing the amplitude of the RF signal.

EVIDENCE APPENDIX

None

RELATED PROCEEDINGS APPENDIX

None